

CIO

WebBusiness

Section Two • July 1, 1998
130 Pages In Two Sections

The 2nd Annual

50



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FYI

FROM: _____

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TO: _____

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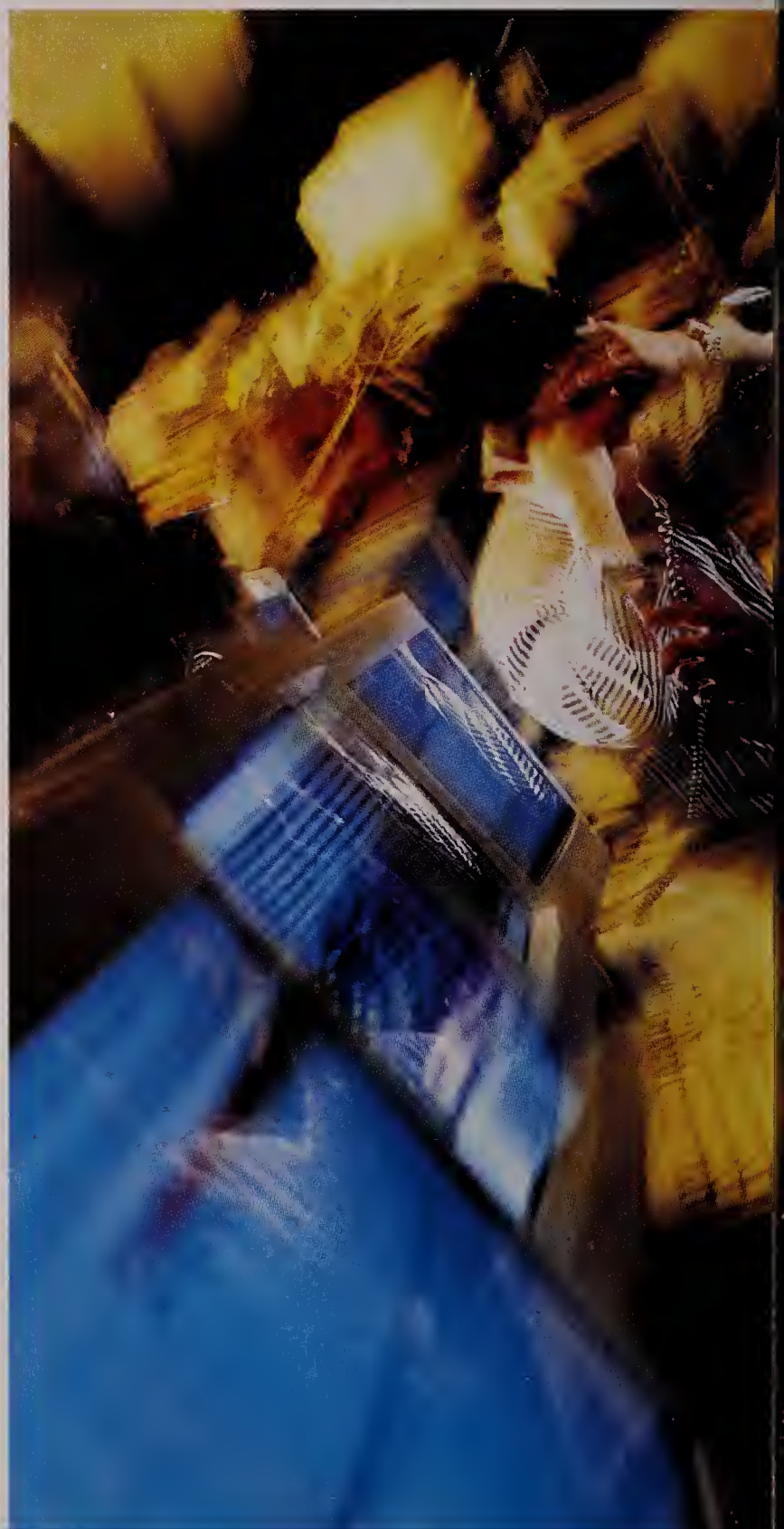
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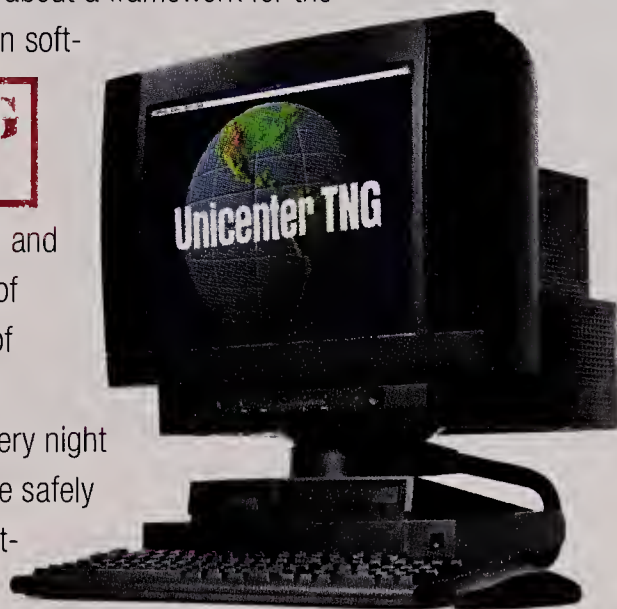
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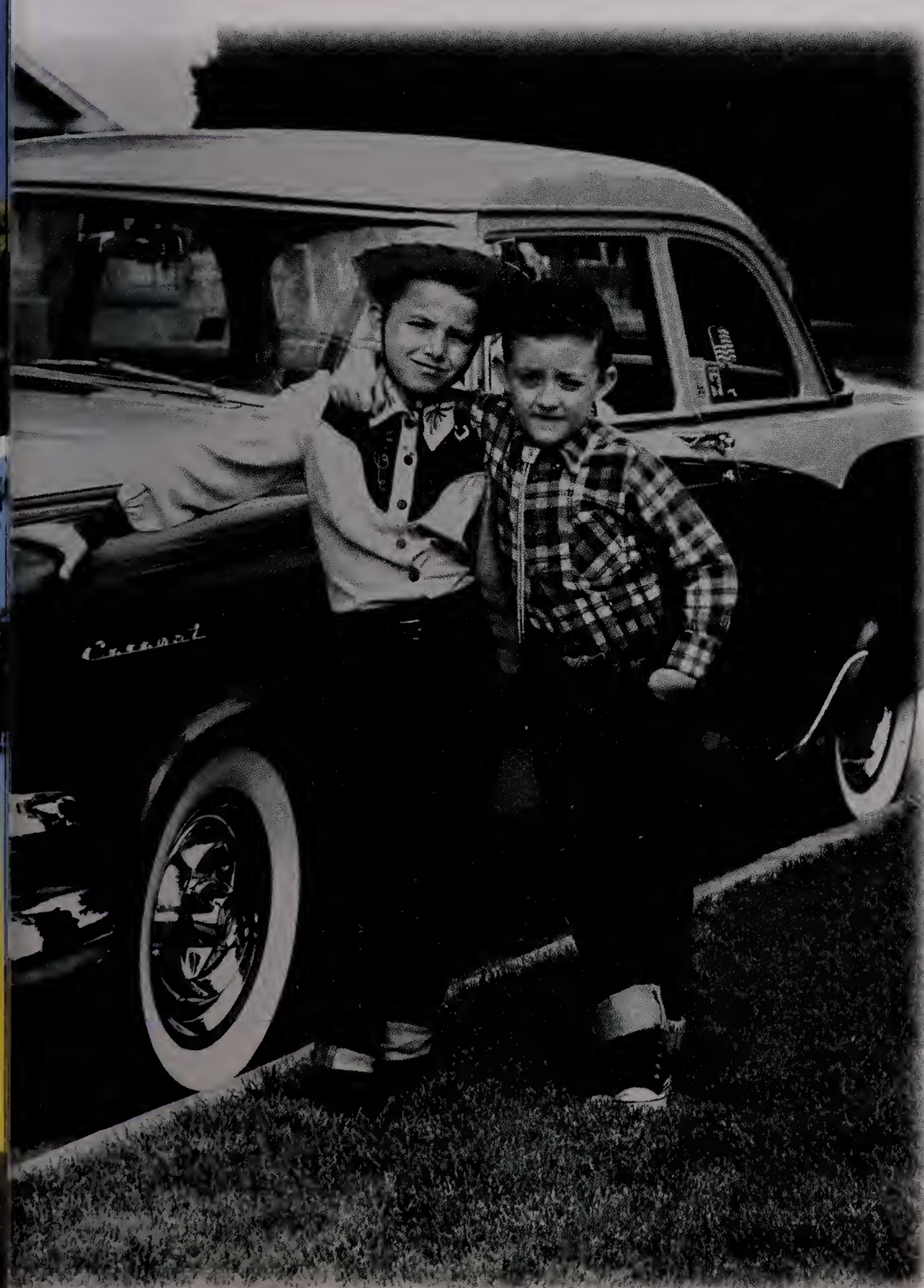
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BENCHMARKING Experts and experienced CIOs share five lessons for effective benchmarking.

YEAR 2000 CHALLENGE Long on questions and short on answers, a Y2K conference brings on a queasy feeling.

EMERGING TECHNOLOGY Enterprise systems need data from other applications, but how do you integrate them?

SHOP TALK The new breed of CIO at Home Nursing Agency.

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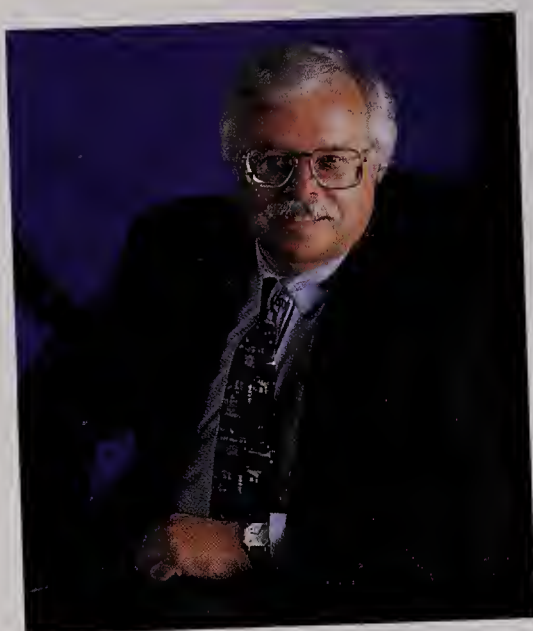
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Care to Dance?

LAST MONTH I URGED READERS TO GET ON BOARD THE E-COMMERCE train and asked what organizations were doing to harness the power of the Internet. This 2nd Annual CIO Web Business 50/50 Awards issue congratulates those companies that use the Net to their advantage internally and externally.

Thanks to the Internet and other aspects of the Information Age, CIOs have achieved higher status during the past decade. They have made leaps on the organization chart. Yet despite the fact that times are indeed changing, there are top executives who continue to turn their backs on the promise of IT.



Many chief executives are either suspicious of IT because they don't understand how it works or wary because of cost. CEOs who never turned on a computer before are now compelled to handle e-mail from their airline seats. Many still try to keep technology at bay. Some CEOs have been burned by projects that have gone wrong. Some IT departments have pursued the technology du jour that cost too much and became obsolete before implementation.

The value senior management places on IT can be measured by assessing how frequently IT issues are considered in major decisions. While many organizations pay lip service to

the importance of IT, those responsible for technology have often been shut out of high-level strategy-making sessions.

Today we are witnessing unprecedented business mergers: Travelers and Citicorp, Daimler-Benz and Chrysler, WorldCom and MCI, SBC and Ameritech. We are also facing year 2000 and Euro issues. Many organizations have to come to grips with all three simultaneously. CEOs who don't include their CIOs at the early stages of the discussions do so at their peril. The IT role in these operations is crucial. And all of this is happening against the backdrop of a new way of doing and running business: the Internet.

Will you find your company's name in this issue next year? As always, I'm interested in your thoughts and ideas.

Joseph L. Levy

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In the consulting business, knowledge isn't just power—it's money. You know something that other people want to know, and they pay you to tell them. So it's not easy to persuade consultants to give knowledge away, even to colleagues.

At Booz, Allen & Hamilton, where executives believed that sharing knowledge would help all staffers do their jobs better, hoarding was a problem. Until recently. Two years ago, the big consultancy built a companywide intranet, dubbed Knowledge On-Line (KOL), whose main purpose is to "provide Booz Allen staff all over the world with the company's 'best thinking.'" Suddenly, excuses for keeping secrets got harder to find. The knowledge management tool, a 50/50 winner, plus a continued push from top management boosted the company over a major cultural hurdle.

"KOL has served as a tremendous catalyst in a



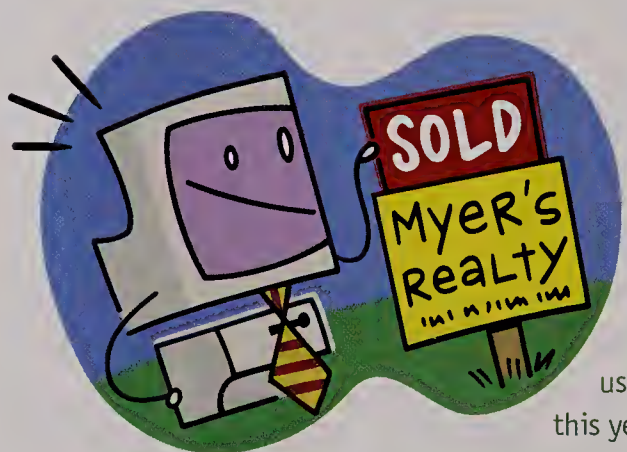
firmwide cultural change," writes Eleanor Schaffner-Mosh, Booz Allen's director of marketing. "Booz Allen is a sharing, collaborative firm today."

Most months, between 60 and 70 percent of the company's Worldwide Commercial Business staffers access KOL, with more than 96 percent of the staff using it over the past year. The knowledge management tool saves time and money, and helps everyone stay on the same page. What's the price?

KOL wasn't cheap, but an independent assessment by IDC put the ROI at 1,300 percent.

KOL is one of several knowledge management intranets that showed up among 50/50 candidates. Two other winners, Perot Systems Real Time Information Network and Reliance Group Holdings RelNet, are also changing culture and saving time and many millions of dollars a year.

—Art Jahnke



Homeward Bound

With all the hassle involved in home buying, it's no wonder that some of the most useful Web sites that entered this year's 50/50 competition

offer online services related to home buying.

At Liberty First Financial's Loanguide.com (www.loanguide.com) househunters find the lowdown on different kinds of mortgages and get a step-by-step walk-through of the loan process. Not satisfied with current mortgage rates? Sign up for Loanguide's Notification Program, plug in the rate you want and they'll e-mail you when rates drop to the indicated level.

More mortgage information is available at HomeShark Inc.

(www.homes shark.com), a multilender online mortgage brokerage service. HomeShark.com aims its services at a large audience including real estate owners, buyers, renters and realtors. In addition to loan and refinancing information, HomeShark offers home evaluation services, access to more than 700,000 home listings and news for real estate agents.

The Web doesn't cater just to home buyers. On WhoWhere Inc. (www.whowhere.com), visitors can link to more than 5 million apartment listings that augment the usual rental details with 24 other features including whether an apartment has a patio, fireplace or covered parking. When it comes time to occupy the newly found apartment, WhoWhere provides links to information about truck rentals, moving companies, renter's insurance and more. So cybershoppers can now move without moving into the poorhouse.

—Megan Santosus



Every once in a while a product comes along that is so well designed, reliable and simple to use, it defines a category. Add to that list the network appliance from the company named Network Appliance. It's designed from the ground up to do one thing: serve data.

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Bank cash machines convert customers to tellers. Do-it-yourself pumps make drivers gas-station attendants. And by offering all kinds of self-service options, corporate intranets increasingly turn employees into their own HR representatives.

This year's CIO Web Business 50/50 winning intranets offer employees unprecedented access and control.

Lucent Benefits Central, for example, lets 100,000 Lucent Technologies Inc. employees enroll for benefits online and provides model scenarios to help them design the most suitable packages. An extranet called CarrierLink provides real-time links to more than 20 carriers and suppliers, so workers can compare plan information, check procedures or locate specialists.

Millipore Corp.'s @Millipore, which offers online classified ads and credit union services, allows workers to book their own business trips and order business cards.



Perot Systems' intranet saves nearly \$280,000 annually because employees enroll for benefits, update their contact information, check payroll data and print forms and letters. The company also uses its intranet for training, orientation, market research, procurement and accessing skills databases.

At Bay Networks Inc., BayWeb is the only source of information about benefits, the employee stock purchase program and courses offered through the internal Bay University. A program called IS Central provides technical support and service online, cutting the number of internal help-desk calls in half. And two Reliance Group Holdings insurance companies use intranets that let anyone in human resources post a job opening without assistance from IT, making their own HR folks, well, self-reliant.

—Anne Stuart

Looks That Kill

Web technology is the newest workhorse of the thoroughly modern corporation, but beasts of burden don't carry less weight when they look good than they do when they look like, well, beasts.

The Amnesty International Web site (rights.amnesty.org) is a 50/50 winner whose look is as fine as its function. The scarlet home page, emblazoned with a bright yellow typeface and offering a riot of color, sets off a stark black-and-white photograph of a 12-year-old African boy herding cattle on a vast African plain.

The site's pièce de résistance is an exhibit of 15 photographs by Phil Borges.

Titled "Enduring Spirit," the pictures of tribespeople from Peru, Kenya, Thailand, Indonesia and Montana are presented in solemn sepia tones and suggest these tribes are living reminders of a time gone by.

Another site the 50/50 judges found a pleasure to behold is that of the Minnesota Landscape Arboretum at the University of Minnesota (www.arboretum.umn.edu), whose purpose is to encourage people to visit the real thing. The home page wears a finely rendered botanical drawing of a flower, and that image changes with the seasons. The colors are natural and understated: a soft blend of greens, yellows and browns on a parchment-colored background. The text is a delicate European-style script, suggesting scholarship and history.

Webside Diners

Hungry?

Got a credit card handy?

The Web can probably serve up something that will whet your appetite,

judging from this year's

50/50 entrants. You can find chocolate-covered pretzels at Clinton, Conn.-based Pepperidge Farm Mail Order Catalog (www.pepperidgefarmgifts.com), order a three-pound beef stick from Hickory Farms (www.hickoryfarms.com) in Maumee, Ohio, or pick up a pack of Rustichella d'Abruzzo Penne Pasta from Orinda, Calif.-based Only Gourmet LLC (www.onlygourmet.com). And if you want something to wash them all down with, how about a three-litre, \$180 bottle of Veuve Cliquot Brut from Northampton, Mass.-based Big Y Wines (www.bigywines.com)? Meanwhile, for those do-it-yourselfers, Santa Clarita, Calif.-based Mimi's Cyber Kitchen (www.cyber-kitchen.com) has recipes, cookbook reviews and a "recipe request line" bulletin board where site visitors can post recipe and cooking questions.

—Sari Kalin

Tom Baker, creative director of Vallon Inc., the Web shop that designed the site, says the arboretum job was a challenge and a welcome relief from work commissioned by his customary clients, Fortune 500 companies.

"It was something different," says Baker. "Our thought was that the arboretum was a place you go for solace and to see life return, and we wanted to do something that would have that effect."

Baker included a Java-enabled photographic tour of the arboretum that reveals, click-by-click, the background image of a flower.

"We knew we had more in us than what we had been doing," says Baker. "We just put our design team to the task."

—Art Jahnke



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The World on a String

If you can find a place on a map, you'll find how to get to it on the Internet. The CIO Web Business 50/50 entries are as diverse as Travelocity, the granddaddy of the one-stop, do-it-yourself travel sites, Hotels Poland, a discount lodging service, and Cruisin', a travel agency that, while not a 50/50 winner, deserves mention for booking \$1 million worth of cruises online last year.

But the real stars are the destination sites that start travelers dreaming about Belize or the Ozarks or Australia and then help them plan their getaways. Land Between the Lakes, a 50/50 winner, promotes a 170,000-acre national recreation area in Kentucky and Tennessee. The site goes beyond glorious photos and online maps (although there are plenty of those) to offer a virtual visitors' center where would-be tourists can plan trips, find discount travel packages and even apply for

park jobs online.

Visit Florida, an official tourism site launched just months before the 50/50 judging, didn't make this year's winners' list, but it's worth watching—and not just by winter-weary Yankees planning to spend spring break in Naples or Orlando. Visit Florida represents a new and so far successful public-private venture. Nearly 800 commercial partners, mostly small tourism-related businesses, support the state-run site in exchange for a chance to promote themselves online. Visit Florida must be doing something right: More than 17,000 potential tourists requested information through the Web site during its first few months online.

Meanwhile, for those who actually do hit the road, there's the Rand McNally Online Travel Store, which offers 3,000 items ranging from guidebooks to luggage. Happy trails to you.

—Anne Stuart

Body Language Internet entrepreneurs discovered early on that a third topic—besides money and sex—interests nearly all online consumers: health. Particularly their own.

So it's no surprise that health care and medical sites were well represented among this year's CIO Web Business 50/50 nominees. Internet winners include Community Drug (www.communitydrug.com), a fledgling prescription-filling service that quickly outstripped the sales of the physical store that spawned it, and Best Doctors Worldwide Healthcare Services (www.bestdoctors.com), which sells books, access to its "Find a Doctor" database and customized searches for specialists.

Health-care providers from hospitals to HMOs have launched comprehensive intranets or extranets for their patients and members. The best, while not all 50/50 winners, offer far more than digitized versions of those waiting-room brochures on allergies or bacterial infections. United Health-Care Corp. allows users to build personalized Web pages to access its frequently updated proprietary content. Members can also join online health discussions led by nurses and counselors. Soon, staffers will answer members' health inquiries by e-mail, posting responses to frequently asked questions for all to read. On The Prudential Insurance Co. of America's secure extranet, members review their benefits and claim information, order ID cards, select primary care physicians and get directions to doctors, dentists and hospitals.

Other sites cater to providers themselves. General Health System's General Health Information Network gives physicians real-time

patient information, such as lab results, radiology reports and medical record transcriptions.

The flow of paper is reduced, and physicians can review records online



in their offices rather than only at the facilities where paper copies are stored. The U.S. Pharmacopeia Convention's site lets health-care professionals receive and update medication error and drug-quality reports and search a database listing precautions, side effects and adverse reactions for more than 750 generic medicines.

—Anne Stuart



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From ZERO_{to} 50/50



No technology has gone from zero to hyperdrive faster than the amalgamated protocols, interconnected devices and teragobs of files that make up the Internet and World Wide Web. Of course, it helped that a seedling infrastructure of pipes and servers was ready and waiting to be built out to the specs of the Net's own DNA—in the form of TCP/IP and HTML, soon joined by Java and assorted other proteins.

The logic of the Net has always seemed irresistible. Give people a straightforward standards-based interface that can serve as a common front end to a variety of applications; give them the ability to find and consume—at their own initiative and pace—useful sources of structured and unstructured information; through hyperlinking, give them the power to make serendipitous context-rich associations among information objects; enable secure transactions; decouple business processes from the tyranny of inflexible systems; simplify programming models to emphasize speed and reusability. Then, freed from some of the most constraining aspects of technology, people would soon discover an open space where innovation could create new kinds of value.

Last year, we established the CIO Web Business 50/50 Awards as a way of taking an annual snapshot of this ongoing creative insurgency. Because the Web is irrevocably transforming the terms and conditions of business, we wanted to honor some of the pioneers who are setting the evanescent benchmarks for a constantly moving target. In this special issue, we showcase 50 Internet and 50 intranet (and extranet) sites that, in our judges' opinions, reflect the best of what business on the Web has to offer at this moment in history.

This year's winners were culled from more than 800 online applicants. As we expected, the bar keeps rising, with business use of the Web showing ever greater sophistication, ambition and effectiveness. In both the Internet and intranet categories, the main criteria were how impressively the nominated site delivered business value, how the design and technical attributes of the site contributed to its business objectives, and how well the blend of technology and design matched the needs of the site's target audience.

Since the entry process began late last year, we have been impressed by the quality not just of the winners but of the entire pool of applicants. Now it's your turn to be impressed.

—Lew McCreary, Editorial Director

Sites *of* D

This year's winning
50/50 Internet sites
have one trait in
common: They all use
the Web to transform
a good idea into clear
business goals.

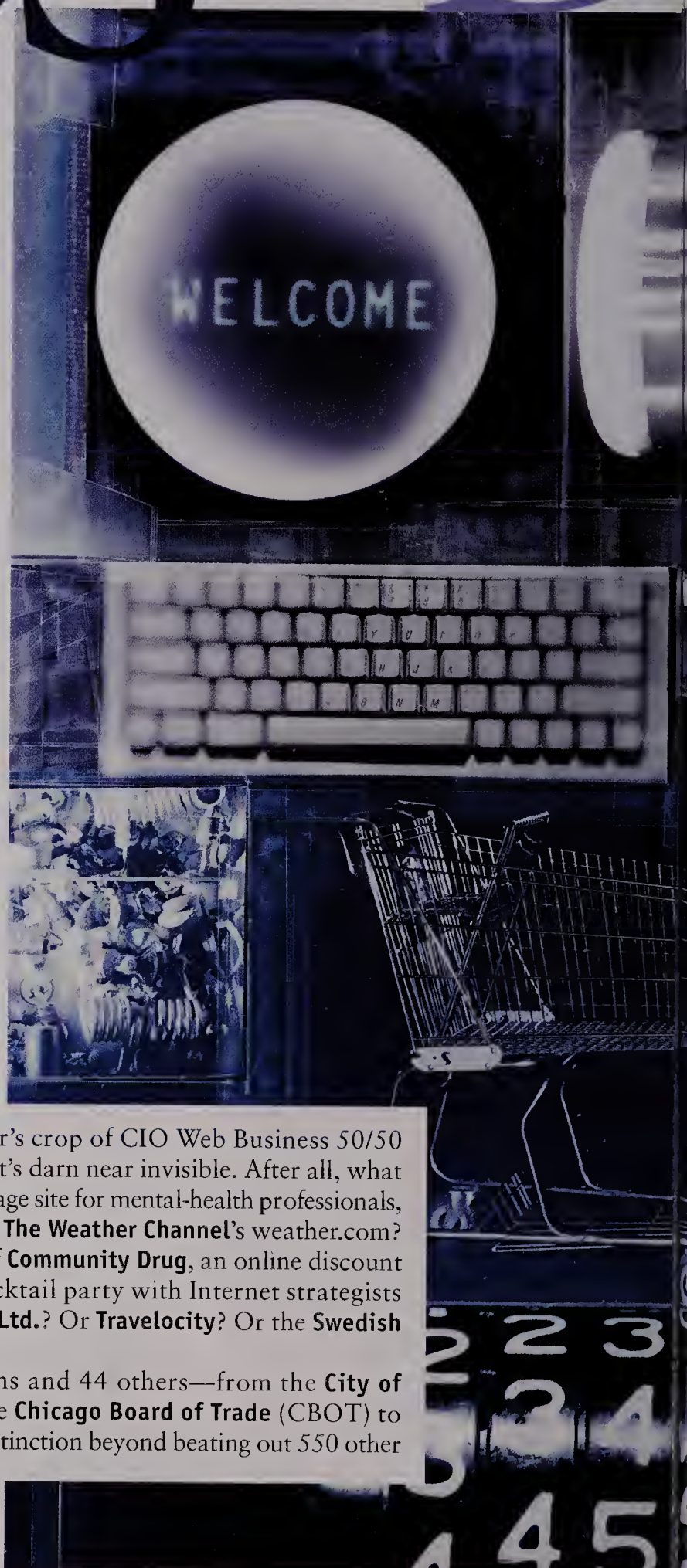
By Anne Stuart



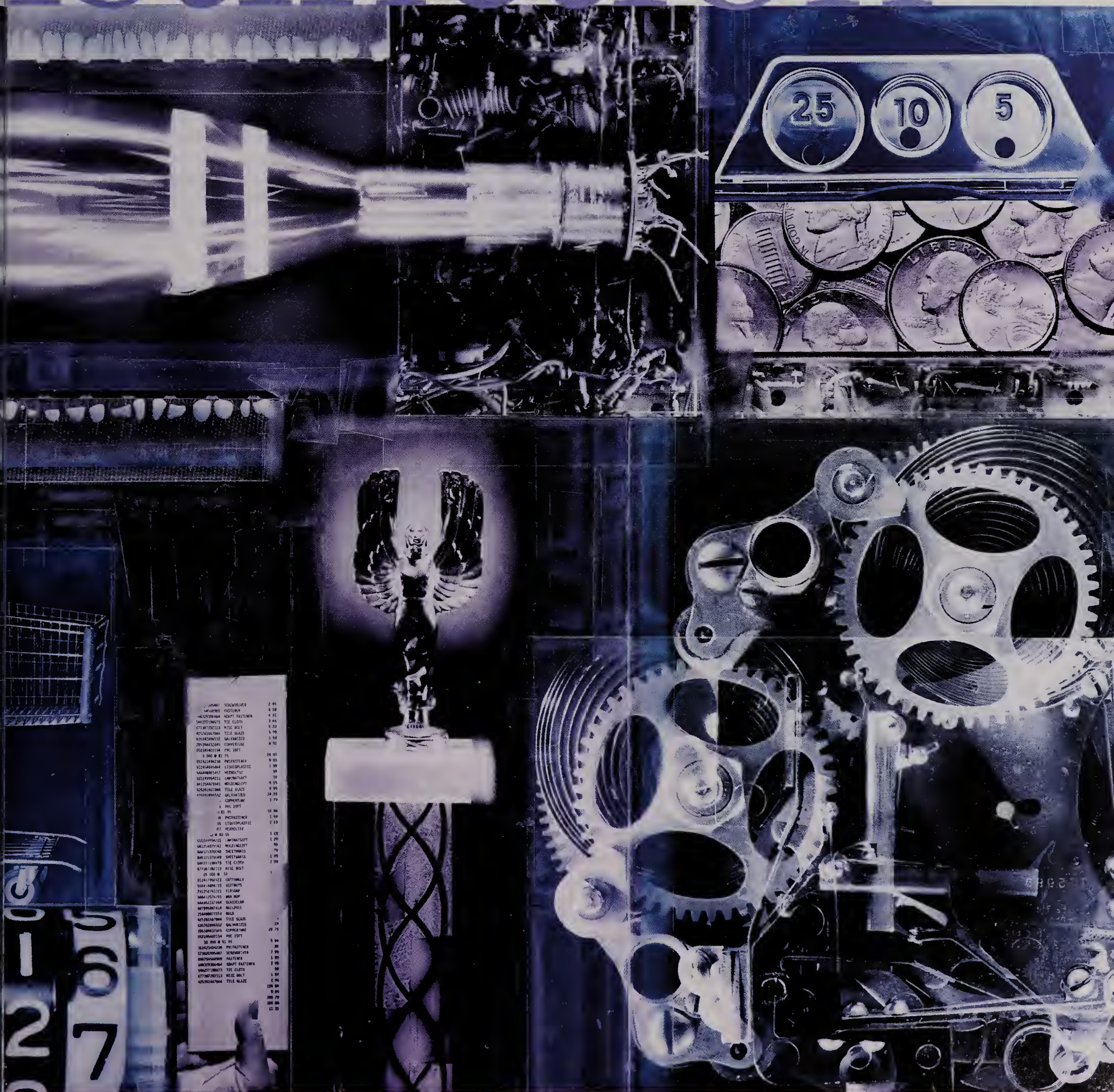
A strong thread links this year's crop of CIO Web Business 50/50 champions, but at first glance it's darn near invisible. After all, what could **PsicoNet**, a Spanish-language site for mental-health professionals, possibly have in common with **The Weather Channel's** weather.com? What would the proprietors of **Community Drug**, an online discount pharmacy, chat about at a cocktail party with Internet strategists from **Samsung Electronics Co. Ltd.**? Or **Travelocity**? Or the **Swedish Post Office**?

And yet those organizations and 44 others—from the **City of Colorado Springs Online** to the **Chicago Board of Trade (CBOT)** to **Camping World Inc.**—share a distinction beyond beating out 550 other

ILLUSTRATION BY GEOFF GRAHAM



distinction



self-nominated contenders from a dozen countries. They clearly understand one of the major tenets about doing business on the maturing Web: A good idea isn't enough. Even being first or foremost with a good idea is no longer enough. (Witness Barnesandnoble.com nipping at Amazon.com's heels.) In the long run, it's strategy and execution that count and set a site apart from its hundreds of thousands of commercial siblings.

This year's honorees aren't necessarily the Web's biggest, best-known or most successful businesses (although any future 50/50 Hall of Fame is likely to start by enshrining Web pioneer and two-time winner **Cisco Systems Inc.**). In fact, judges eliminated some big-name contenders early on because they failed to describe their sites' business value on the Web Business 50/50 application. And some companies favored to place on anybody's list of the best Web businesses—for instance, Dell Computer Corp., which does about \$4 million in online sales every day—didn't make the winner's circle simply because its executives didn't enter the race. Diverse as they are, those that made the cut all spun their good ideas into clear business goals. All reach and serve their target audiences and overall look good and work well. All appear to yield some kind of return, although when it comes to measuring value, the bottom line isn't always the bottom line.

Amnesty International, for example, says its Web site trims costs for printing and mailing materials supporting its efforts to protect human rights. But managers say the site's greatest value is in "enabling instantaneous global action," such as letting visitors sign online petitions or send e-mail protesting individual human rights violations.

Several 50/50 winners from 1997 reapplied this year, but only three earned repeat honors. Judges felt those three—**Cisco Connection Online**, **Innvest: America's Hotel Online Superstore** and **Trade Compass**—best exemplify another imperative: Web work is never done. Returning champions all demonstrated they'd significantly improved their sites' scope or service in the past year. Innvest—a hospitality-industry trade site that, among other things, helps match property buyers and sellers—now lets members buy, update or delete online ads in real-time. Trade Compass, a resource for global trade data, created a network of integrated business applications for the cargo-transport industry. Cisco just keeps growing, taking 52 percent of its orders on the Web to the tune of \$10 million *every day*. (For more on previous winners, see *WebMaster*, August 1997, available on the Web at www.cio.com/archive.)

Nobody understands crowd-pleasing better than sites developed to serve a narrow market slice. Besides Innvest, there's the **American Association of Individual Investors** (AAII), whose Web site offers a windfall of personal-investment information, including an online archive with a rare treasure trove of seven years' worth of past articles. But the site also fulfills a membership-building strategy, cleverly offering nonmembers just enough information to entice them into paying dues for full access.

The site for customers of bovine-genetics company **ABS**

Global Inc. will puzzle, maybe even amuse, visitors who don't know a Holstein from a hole in the ground. But it's packed with breeding data, sales and employment information, scientific news and other links for the cattle-breeding community it serves.

As in last year's awards, quite a few winners were honored for elegantly simple concepts ideally tailored to the Web. Among them, several created new intermediaries, driving yet another stake through the heart of the idea that there's no room for middlemen on the Internet. For example, **i-Escrow**

Inc. serves as a trustworthy go-between for buyers and sellers who cut deals online. Once the two parties have reached an agreement, i-Escrow makes sure the buyer pays and the seller ships (see "Overcoming Fear of Buying," Page 28). **LeaseSource**, an automobile-leasing information site, connects users to leasing agencies and insurance companies, which pay fees to be listed.

Other winners morphed into virtual businesses. **IncSpot** provides corporations and law firms with one-stop shopping for researching, retrieving and filing public business forms, replacing a proprietary software product that formerly provided such functions. An online reference library contains legal and tax business documents from all 50 states; some can be filed directly online. The U.S. Corporation Co., which owns IncSpot, says that based on the number of registrations, it's penetrating deeply into its market, reaching more than 80 percent of the people in its target audience. Of those, 40 percent use the site at least weekly. Many, of course, simply switched from the company's proprietary software to its Web site. But IncSpot has garnered new converts as well. In the site's first 14 months online, it registered 300 percent more customers than its software predecessor got in its full five-year history.

Yet other winners use the Web to extend their businesses, sometimes with dramatic results. The **Visual Evidence Center**, which designs exhibits for courtroom use, collaborates with its clients over its password-protected Web site. Its sales increased, largely due to expanded geographic reach, while overhead costs dropped (see "Exhibit A Online," Page 34). **Thomas Publishing Co.**, a venerable producer of print guides and magazines for buyers and sellers of industrial products, launched the Thomas Register on the Internet and promptly earned \$16 million in new revenues from manufacturers who paid for listings. Client testimonials tell the story: Wanner Engineering credits the online catalog it maintains on the Thomas Register for helping land a \$50 million contract with General Motors Corp. And despite its strong telephonic association, the **1-800-FLOWERS** Web site accounts for \$10 million of the floral retailer's annual sales. But that's not the best part: It's so cost-effective to offer self-service floral sales online that 1-800-FLOWERS customers who order over the Web pay \$3 less than customers who call that unforgettable phone number.

Several of this year's field of winners offer financial information—not just up-to-the-minute data but educational material with surprisingly little hype. At the Chicago Board of Trade, for instance, investment novices can get a crash course (and a virtual reality tour of the trading floor) in commodity and option trading. **Loanguide.com**, a clear,



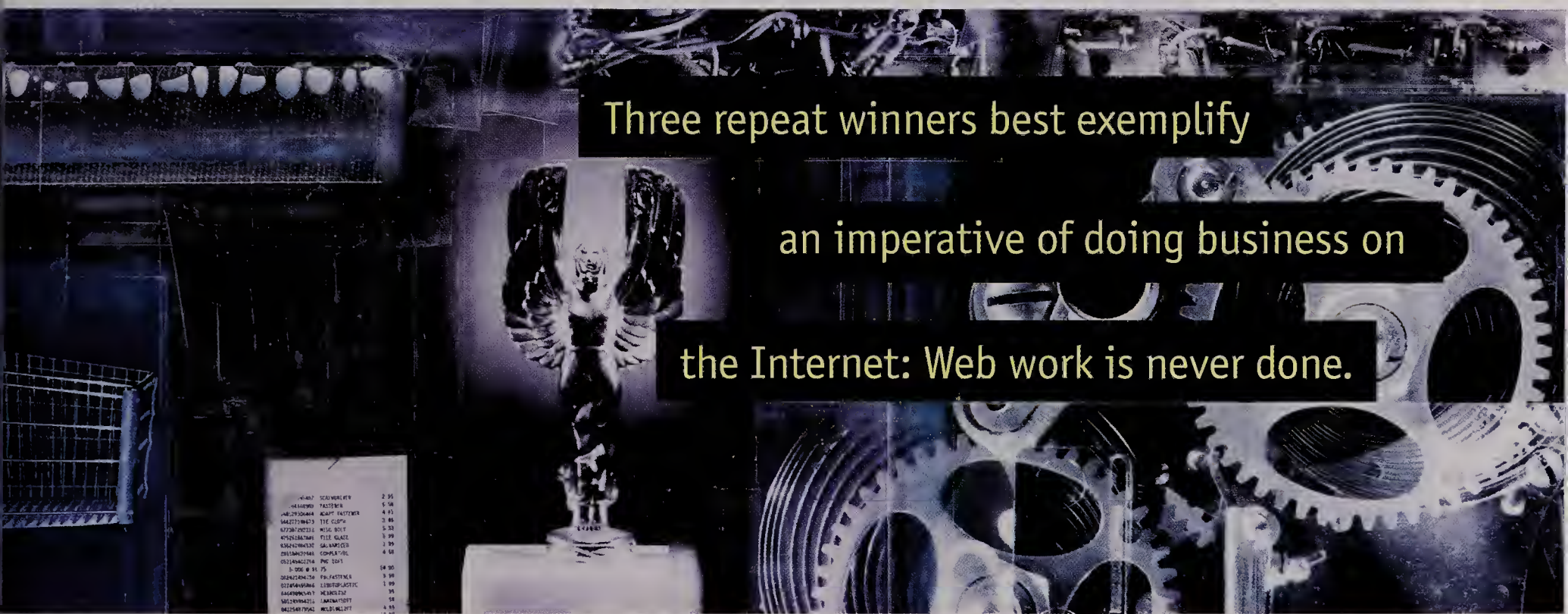
straightforward labor of love backed by Liberty First Financial, offers potential users plenty of regularly updated home financing information. Visitors can take a step-by-step lesson in financing, compare rates and terms, sign up for automatic notification when rates hit certain levels and apply for a mortgage online.

True innovation is tough to single out in certain highly cluttered fields, such as the municipal and tourist-destination categories. Palo Alto, Calif., made Internet history by taking its city government online four years ago. Since then, it's been joined by thousands of other communities, often with a cookie-cutter approach to content and design. The result: A plethora of sites that look dismayingly similar online. This year's 50/50, however, includes two city sites far more sophisticated than most of their peers. The Colorado Springs site offers gorgeous photos, simple navigation and page after page of content for visitors and locals, including local flight information that's refreshed every minute. Besides providing 24-hour access, city officials say the site has markedly reduced the number of people who walk into City Hall or call municipal employees with questions. Its mid-western cousin, the **City of Indianapolis's** IndyGov site, offers

taxes, track packages and link to a range of commercial sites offering e-commerce. (Postmaster General, are you listening?)

At some winning sites, the road from terrific idea to flawless execution remains a bit bumpy, illustrating again the need for and value of continuous improvement. **Community Drug**, the virtual component of a long-time Pittsburgh pharmacy, offers a much-needed service: competitively priced prescription drugs that can be ordered online and delivered by mail. According to its application, the online pharmacy does more business than its 82-year-old progenitor. Unfortunately, because price quotes are handled personally, it can take hours to get an e-mail response—a lag rapidly becoming unacceptable in the world of Web commerce.

Apartments.com, a national online rental-listing service, lets would-be tenants search for apartments nationwide. Selecting location, price range and criteria such as the number of bedrooms or bathrooms, users can compile a list of available housing in a particular city, virtually tour properties, e-mail landlords, generate site maps and link to other moving and housing resources. Great idea. Certainly, demand is there. But the site could better serve its customers by making a few design tweaks. It could eliminate or make optional



a less stylish but even smarter approach with a virtual City Hall. Citizens can pay parking tickets, apply for permits and get free copies of zoning maps that previously cost \$1 per page for a hard copy. Businesses can buy "premium services," such as direct online access to court records for simplifying employee criminal-background checks. Meanwhile, **Kansas City Power & Light Co.** makes life easier for its gas, electric and sewer customers by not only providing personalized account information but letting them pay their bills online (see "Power Play," Page 22).

Then there's the **Swedish Post Office**, offering such efficient, high-quality service over the Web that it's easy to forget you're dealing with a government agency. Postal customers can check rates, buy stamps, fill out change-of-address forms, pay

exterior building shots that offer little value while taking lots of time to load, for example, and use text instead of a string of tough-to-decode icons to describe amenities such as "hardwood floors" and "doorman on premises."

But those flaws—like those of many other entrants, winners and losers—remind us that Web business flourishes because people take risks trying to make their ideas fly. Some never get off the ground. Some crash and burn. Overall, we think these 50 Internet businesses have hit high altitude. We invite you to join us in watching their progress as they reach cruising speed. **CIO**

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Web Administrator Jeanie Jermyn has seen Kansas City Power & Light's online initiative expand from modest beginnings into a vehicle for offering customers value-added services.



Threatened by competition in a newly deregulated

business, Kansas City Power & Light is using the Web to win friends and influence enemies

By Art Jahnke

Power

Internet Profile • 1

When Douglas Morgan, vice president of information technologies at Kansas City Power & Light (KCPL), wants to see the future of companies like his, he looks west. And what he sees is a blood bath.

"In California, the power companies are losing customers very rapidly," he reports. "There are a hundred competitors vying for industrial and commercial customers. They are just cherry-picking the best customers."

Morgan knows that it won't be long before his customers are promised more and better services by newcomers to the power business. So in an effort to demonstrate that Kansas City Power & Light truly is the customer's best friend, the utility has

Play

built a Web site (www.kcpl.com) that lets more than 400,000 customers check their own power usage, pay their bills, learn how to keep electric costs down and much more.

"Deregulation is imminent," he says. "We have competitors with offices in our city, and they are preparing to take our customers. We believe the Net is going to be a very positive force in expanding our products and services."

It's still far too soon to tell if KCPL's Web initiative will help the century-old utility hang on to customers, but it's not too soon to admire the effort behind the CIO Web Business 50/50 award-winning Web site.

For Morgan and KCPL Web Administrator Jeanie Jermyn, the cyberpush began two years ago,

PHOTO BY ED LALLO

after KCPL noticed that competing utilities were using Web sites to post "news" about a rumored merger of KCPL and another company. In response, KCPL rushed online. For Morgan and Jermyn, it wasn't simply a matter of being outgunned in cyberspace; the competitors had tossed down the gauntlets of wide open warfare in a newly deregulated business.

What happened to the telephone companies is now happening to utilities. Like the phone companies, power companies have held virtual monopolies on the sale of electricity in most metropolitan areas. Because they built the generators and installed the lines that delivered the power, the allegedly public utility companies became the sole source of power for everyone, business and resident included. Now, however, the federal government has decreed that utilities will be required to lease their power lines to other providers, the same way the once-monopolistic telephone companies are required to lease their lines to competing telephone service providers.

"In the deregulated environment," says Morgan, "there will be brokers and aggregators of all kinds. They will be calling you up at dinnertime just like the telephone companies do now and telling you that they've got a better deal for you."

What really worries Morgan and executives at

KCPL is the likelihood that the new power brokers really *will* have a better deal, so KCPL is doing everything it can to get on good terms with the residential, commercial and industrial consumers who have been captive customers for the past 100 years. And while Morgan understands the advantage of KCPL's current ownership of the market, he also understands the resentment of customers who have had no option to choose other electricity providers.

"The electric utilities have deprived all customers of choice for 100 years," says Morgan. Consequently, he says, more than a few may be inclined to change providers as soon as the state makes deregulation official simply because they can.

That sentiment and the consequences of deregulation that Morgan sees in California were all that was needed to persuade KCPL executives to invest in the Web site.

"The executives of this company are very advanced in how they look at the issue of retaining the customer," says Morgan. "They understand what is happening."

What no one at KCPL did understand, however, was the difference between publishing in hard copy and publishing online. The site's first iteration, says Jermyn, was less than sterling.

"We were in such a hurry to get something together that we did a few things wrong," recalls Jermyn. "What we did in the beginning is just take brochures that we already had and put them on the site. Then we made another place for press releases."

Today Jermyn understands that many brochures are far too lengthy to read online. "They are a little too wordy," she says. "We are trying to get away from that now."

Another design error that Jermyn is now correcting was the placement of more than 40 links down the left-hand side of the site's home page. "We are trying to reduce the number," says Jermyn. "It's way too confusing. We are right in the middle of a site redesign."

Jermyn and others at KCPL have learned a great deal about what works online and what doesn't. Since the launch of their hastily assembled site, Glen Lewis, manager of network services at KCPL, Morgan and Ray Pasley, KCPL's supervisor of Internet services, have spent months talking to customers, trying to learn what kind of value-added services might be made available via the Web. What began as a relatively modest effort to get something up online—and perhaps sell some additional products and services—expanded as Jermyn learned what customers wanted.

"They were definitely driving a lot of the development toward being able to pay their bills online," says Pasley. "Another thing that came out of those discussions was their awareness of what deregulation meant. They were looking to us to provide information to help them decide what to do."

Jermyn realized that when it came to giving customers immediate feedback on their use of electric power, KCPL had an advantage over virtually all other power companies. In 1994 the company had invested heavily in the installation of a wireless automatic meter-reading system that gave utility employees sitting in front of computers at corporate headquarters immediate access to meter readings for more than 400,000 businesses and homes. Unlike most automatic meter-reading systems, which check power usage only once a month, KCPL's system could check any meter anytime. By hooking that data into the Web site, Jeanie Jermyn realized, the utility could give customers with Internet access the ability to monitor their power usage, minute by minute,

Internet winners

1-800-FLOWERS

www.1800flowers.com

This site's sole mission is selling flowers online. And that it does, generating \$10 million in revenues in 1997. Sales should double in 1998, partly due to increased international business.

Web-related cost savings let the company offer a \$3 discount to customers who order online rather than by telephone.



ABS Global Inc.

www.absglobal.com

The Web site for this bovine genetics company and its biotech subsidiary, Infigen, offers page after page of cattle-industry information, including breeding data, sales and job updates, and scientific news. Sales increased 18 percent during the site's first year; the

company also saved \$144,000 by using a virtual private network rather than a WAN.

Internet winners

any time of the day or night. That application, called AccountLink, has been phased in to residential and commercial customers over the past year.

"In the summer out here it can get pretty hot," says Morgan. "When we put that information online our customers started looking at consumption every day and started planning how to make things more efficient. We have customers who watch that pretty diligently.

"In the old days," says Morgan, "when the customer would call in and say, 'I could not have used that much power,' it would take the customer representative a long time to come up with that [usage] information. Now they can just call it up. We have 400,000 meters hooked into the system and we can read them as frequently as every five minutes. As far as we know, we are the only utility that offers customers daily summaries of their energy use."

Jack Besco, owner of Besco Computers, a small business in Shawnee, Kan., is one of those customers who use AccountLink to check power usage. "I like to check it and compare it to last year," says Besco, who keeps track of his usage both at work and at home.

"At home I can actually watch it peaking on weekends, when I'm working in my wood shop. It's presented in a bar chart so it gives you a real good comparison."

And while Besco admits that knowing how much power he uses hasn't changed his habits, he says it may someday come to that. What AccountLink has changed, however, largely because of the application that lets him pay bills online after registering, is Besco's opinion of KCPL.

"The thing I really like," says Besco, "is being able to just dial up and look at my balance and pay my bill. I don't have to get out my checkbook, write a check, put it in an envelope, put a stamp on it and send it along so it will be there in two days. I love that. I think in five years we're going to be paying all of our bills like that. What's neat about this is that a lot of utilities are kind of backward in a lot of ways, so it's nice to see one that is jumping out in front of everybody."

Soon, says Morgan, KCPL hopes to jump even farther by using an extranet to deliver detailed reports of power use to commercial customers. "We have customers like municipalities with many different users or like Wal-Mart Stores with many facilities, and they want a detailed accounting of power use at all facilities," says Morgan. "We are putting that online so they will be able to drill down and look at each facility separately instead of a total account."

"With that system," says Pasley, "if you are a municipality you can look at all of the different schools. Another big budget item in every municipality is street lights and traffic lights. We are going to provide a service that will be very attractive to them. We are positioning ourselves to retain those kinds of customers. Those are the customers that are being picked off, and we want to be in a position with value-added services, so we do more than provide electricity and send you a bill once a month."

When there's a problem or a disruption in service, KCPL also turns to the Web. The automated meter-reading system can tell KCPL repair units if a problem is in the customer's house or in

American Association of Individual Investors www.aaai.com

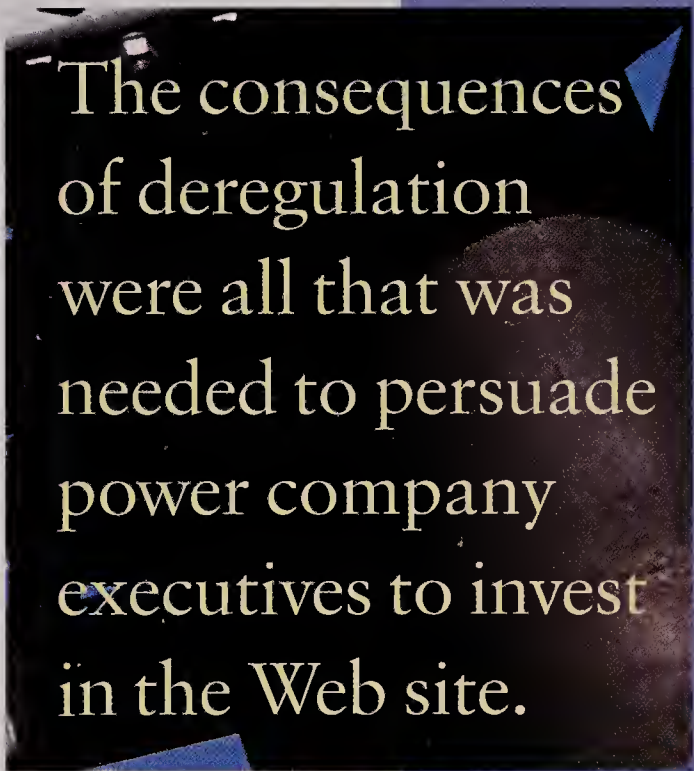
The association's members have access to a wealth of personal investment information on this site, including seven years' worth of archived articles from the association's publications. By providing visitors with attractive free tidbits of information, the site ultimately produces more members than AAII's forum on America Online.

American Farm Bureau Federation *The Voice of Agriculture* www.fb.com

The Voice of Agriculture provides farmers, ranchers, government and journalists with a rich, reliable source of information on agricultural issues and Farm Bureau activities. Rural users with slow Internet connections particularly appreciate the site's streamlined design, which minimizes download time.

Amnesty International rights.amnesty.org

Marking the 50th anniversary of the Universal Declaration of Human Rights, the site allows visitors to sign the document virtually or to learn how they can protest individual cases of persecution. Amnesty says such efforts create an international community supporting its human rights work while saving substantially on printing and mailing costs. Currently in English, the site will add French and Spanish soon.



The consequences
of deregulation
were all that was
needed to persuade
power company
executives to invest
in the Web site.

the wires leading to the house. Each meter is equipped with a "last gasp" alarm, which alerts customer representatives when the flow of power stops. The wireless system, Morgan says, saves the company about 105,000 field service trips a year. In addition, during power outages, the wireless system can immediately capture and analyze the last gasp pattern, and help pinpoint the source of a problem.

KCPL is talking about posting street maps, which will show where power outages have occurred. The

Internet winners

company plans to make this outage information available to police and fire departments via their Web sites or an extranet.

"We can put a service map [online] showing the problem on the map," says Pasley. "It can be an actual map showing real-time problems, made accessible via password. This is exciting stuff."

The KCPL site also posts information that is helpful to those customers who have used the site to discover that their energy use is higher than it could be. There are formulas to figure out the average cost per hour needed to operate appliances and dozens of suggestions for saving energy. Want to save a few bucks on your bill? The site suggests that you open south, east and west curtains in the winter for auxiliary solar heat. Or in the summer do cooking, laundry and other heat-producing chores in the cooler hours of the morning or evening.

The site also posts some marketing and sales information that had previously been available only in hard copy. There is a section for information of special interest to senior citizens and special needs customers, and there are explanations about the cold weather program, which helps protect customers from electric power termination during the winter months. There is safety information, advertised with a warning: "Don't fly a kite before checking out the site." And there are many pages describing KCPL's environmental efforts, including efforts it is only thinking about making—such as restoring the native fauna to the prairie land surrounding its power plants—and links to the local Audubon Society and the Missouri Prairie Foundation. In the minority vendor pages, customers can search a directory of minority-owned businesses, and like most corporate Web sites, the KCPL site posts investment information, annual reports and job listings, inviting candidates to submit résumés online.

These days, the site's content is maintained almost entirely by Jermyn and two programmers who work as needed on back-end and database programming. Site design, including the current redesign, is outsourced to private contractors. According to Pasley, building an infrastructure and setting up the systems were relatively easy to accomplish. "The most difficult task for a company with the glamour of an electric utility is drawing people to the site."

Jermyn is reluctant to describe the KCPL site as an unmitigated success, and she is disappointed that relatively few users visit those pages that sell products like surge protectors. Still, she is pleased with the 16,000 page impressions each month, and she receives many e-mails with favorable remarks from customers.

So far, the KCPL site has signed up more than 1,800 residential users and 800 commercial users for AccountLink, which allows customers to check their power usage online. Many other customers now pay bills online. While those numbers are unimpressive—Jermyn knows that about 20 percent of roughly 400,000 customers have Internet access—they represent early adopters who came to the Web site before the utility's marketing push. Jermyn hopes that the marketing effort, which begins this summer and will include information about the site in monthly bills, will boost the number of users.

She also knows that it will mark the beginning of the site's ultimate trial, one that over the next few years will confront every utility company in America: Turn captive customers into loyal customers.

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Apartments.com **www.apartments.com**

Formerly known as apartmentsplus.com, this site is becoming a major player in the emerging rental and relocation industry. Visitors search a national database of apartments, virtually tour properties, e-mail landlords and generate site maps. Then they can visit the site's Moving Center, which links to moving companies, truck rental agencies and local school information.

Atlanta Press Club **Mayoral Debate** **Web Site**

www.atlpressclub.org

This site made history by enabling Georgia's first online political debate. Voters e-mailed questions for candidates and then heard their responses via RealAudio. Those who missed the live action could read transcripts online the same night. Organizers plan to repeat the event for upcoming gubernatorial and Senate races.

Best Doctors **Worldwide** **Healthcare Services**

www.bestdoctors.com

According to its testimonials, this medical-information site changes—or maybe even saves—lives. Services range from an online bookstore to a much costlier customized referral service to a directory of 28,000 doctors; the site boasts 1,000 e-commerce transactions totaling \$50,000 in sales in one month.

Camping World **Inc.**

www.campingworld.com

This site makes money, not hype. Camping World caters to an audience of senior citizens who roam the country in recreational vehicles. The site, which broke even in eight months, is projected to generate at least \$600,000 from sales of RV equipment, supplies and services this year.

APL Ltd. Web Site **www.apl.com**

This container-transportation company's Web site is the envy of its industry, letting customers track shipments from order through delivery. Every month, users trace more than 7,500 shipments through the Web, saving at least that many customer service phone calls. The site also cuts marketing costs while generating new business.

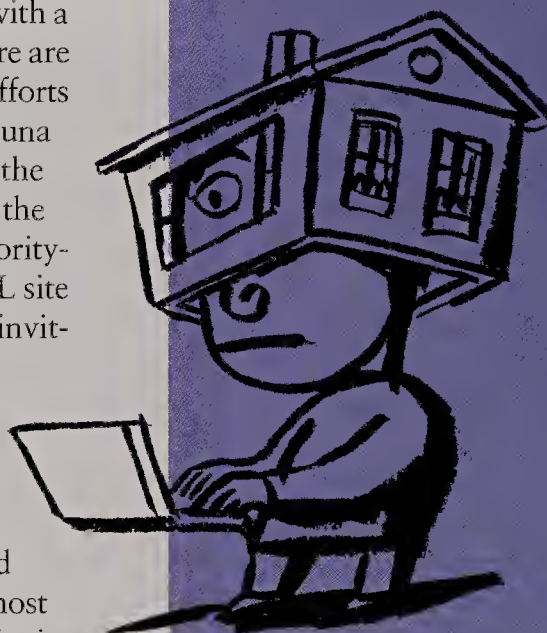


ILLUSTRATION BY ROBERT NEUBECKER

PLAY GOD.

It's Tuesday morning. The Asian market lost 20% of its value overnight. The US market opens in 10 minutes. You've just deployed your on-line trading system.

Are you ready?

Go ahead, play God.

With *LiveQuality E-Business Testing* from Segue Software, you're ready for disasters of biblical proportions. *LiveQuality* gives you the power to play God by creating real-world scenarios before you run into real-world disasters. Don't deploy your e-business solution without understanding the effects of hundreds and thousands of



simultaneous
users, rapid
system and

content change, and your application's ability to traverse across multiple platforms and technologies. Use *LiveQuality* to safeguard your business-critical application against catastrophic real-world events before they happen. No other software testing solution can make this claim.

For more information about *LiveQuality*, please call 1-800-287-1329, or visit our Web site at www.segue.com.

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The E-Business Testing CompanyTM

Internet Winners

Web Wonders: Buy and sell with confidence. Offer classes. Host debates. Whatever the business activity, this year's 50 Internet champions do it just as well online. Sometimes even better. Here's the list of winners, along with snapshots of a few particularly innovative sites.

Internet Profile .2

Overcoming Fear of Buying

Internet commerce sites try to quell consumers' fear of spending money online by touting their firewall and encryption technologies as well as the trustworthiness of their brand names. But if you're a consumer searching the online classifieds for bargains or negotiating to sell your baseball-card collection to a distant stranger, you have to take it on faith that your fellow humans won't rip you off. Or you could turn to i-Escrow Inc. (www.iescrow.com), an insured and bonded San Mateo, Calif.-based company that positions itself as an impartial, third-party intermediary.

Founded in 1997, i-Escrow serves as an electronic middleman between individuals buying and selling over the Internet. "There's a level of trust between merchants and consumers and among businesses when it comes to e-commerce initiatives," says Ed Chavez, i-Escrow's marketing manager. "But between individuals, e-commerce is like a standoff; the seller doesn't want to ship first and the buyer doesn't want to pay first." That's where i-Escrow comes in.

After a buyer and seller have made a connection and negotiated the terms of their deal—price, shipping arrangements and the buyer's merchandise-inspection period—the seller goes to i-Escrow's Web site. There, he or she provides contact information, details of the deal and the buyer's e-mail address. Next, i-Escrow issues the seller a transaction-ID number. The seller establishes a password that provides access to a dynamically updated page that tracks the deal's status, and i-Escrow's content-driven database automatically updates the page step by step as the deal progresses. Then i-Escrow contacts the buyer by e-mail, providing the transaction-ID number and instructing the buyer, like the seller, to create a password to the transaction update page.

Using a credit card, cashier's check or money order, the buyer pays i-Escrow for the merchandise. That payment includes i-Escrow's non-refundable service fee of \$5 or 5 percent of the merchandise price, whichever is greater. When i-Escrow receives payment, the seller gets the nod to ship the merchandise to the buyer, who, within the agreed-upon inspection period (typically two days), checks the merchandise and either accepts or returns it to the seller. Finally, when the buyer accepts shipment, i-Escrow sends the seller a check.

Chavez won't comment on the profitability of the privately funded company. But he says that since August 1997, i-Escrow has served thousands of customers and has established business relationships with online auction services including ONSALE Exchange (www.onsale.com/exchange.htm), City Auction (www.cityauction.com), Haggle Online (www.haggle.com) and eBay Inc. (www.ebay.com).

Chicago Board of Trade

www.cbott.com

The Chicago Board of Trade's Web site goes a long way toward demystifying how commodity and option trading works. Neophytes can get a virtual tour of the agricultural trading floor via a Quicktime virtual reality movie. For trading pros, the site offers a "Players' Sheet," which provides daily updates of who's buying and selling in the pits.

REPEAT WINNER

Cisco Systems Inc.

Cisco Connection Online

www.cisco.com

This high-tech manufacturer's site continues to set customer self-service standards through online order processing, product and event registration, and technical support. CCO receives 52 percent of Cisco's total orders, averaging \$10 million a day in electronic commerce and saving \$250 million annually on customer service, tech support, software delivery and paper costs.

City of Colorado Springs Online

www.colorado-springs.com

With its clean, elegant, easy-to-navigate design, this city-run site provides loads of phone numbers, maps and other information for both residents and tourists. One noteworthy feature is local flight information, updated every 60 seconds. City officials say the site has cut clerical time spent responding to information requests.

City of Indianapolis

IndyGov

www.indygov.org

Pay parking tickets online. Report abandoned cars. Be virtual mayor. Access court records. This site reaches out to residents and makes life easier. Why fight City Hall when it's so friendly and accessible?

Communications Data Services Inc.

commerce.

cdsfulfillment.com

CDS acts as sort of an administrative assistant for the 117 magazine publishers it counts as clients. Its subscription transaction processing cuts paper and postage costs; online customer service saves 30 cents on average on every inquiry handled over the Web rather than by telephone.

Community Drug

www.communitydrug.com

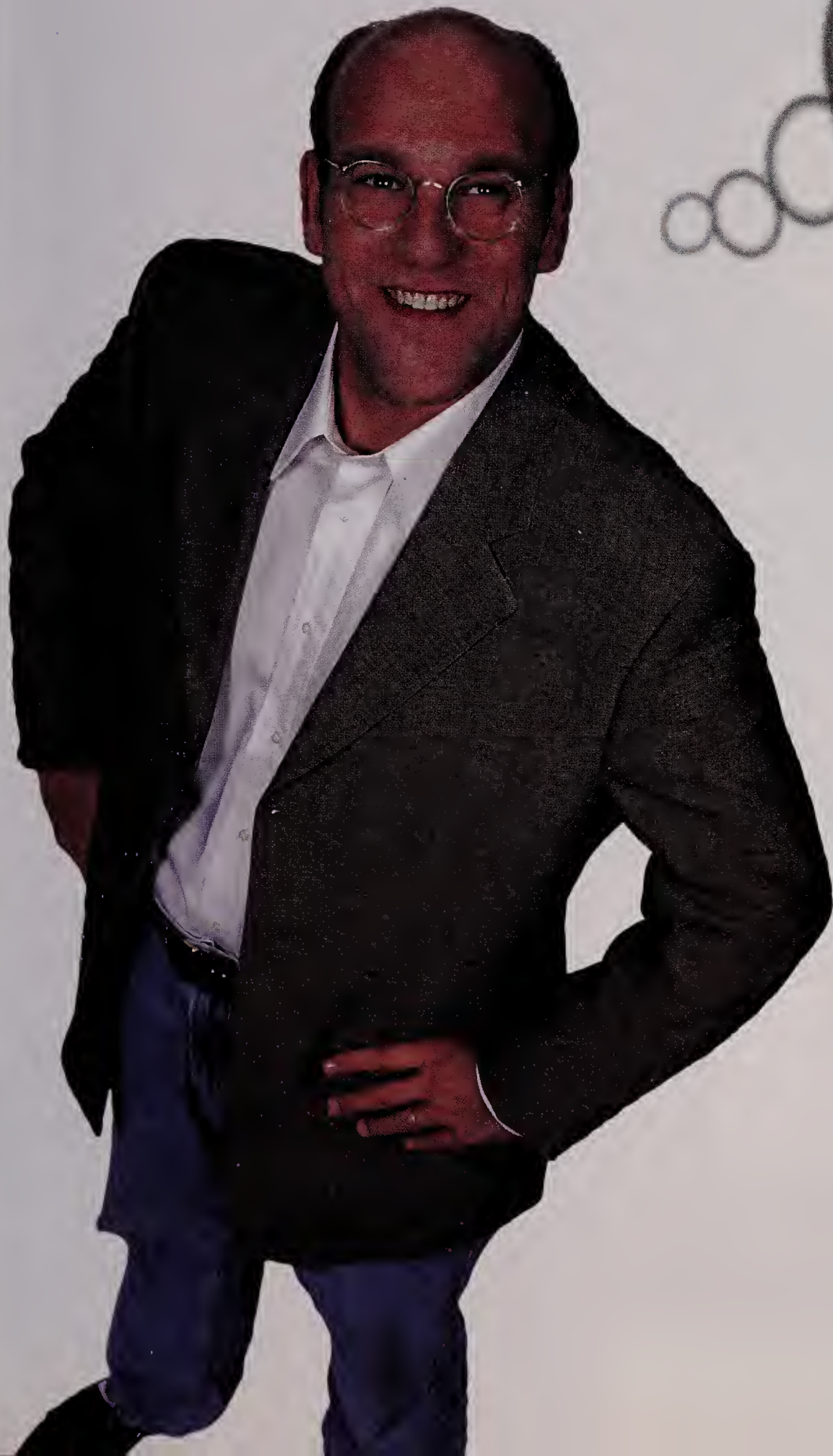
This site allowed an 80-year-old drugstore in Pittsburgh to globalize overnight. Customers can refill prescriptions from other pharmacies or request price quotes by e-mail. Sales average \$15,000 monthly; the company also saves on order processing costs.

CSC: The U.S. Corporation Co.

www.incspot.com

IncSpot, which lets users retrieve and file tax, legal and business documents in all 50 states and Washington, D.C., replaced a software product offering the same services. In its first 14 months, IncSpot registered 300 percent more customers than did its software predecessor.

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Internet winners

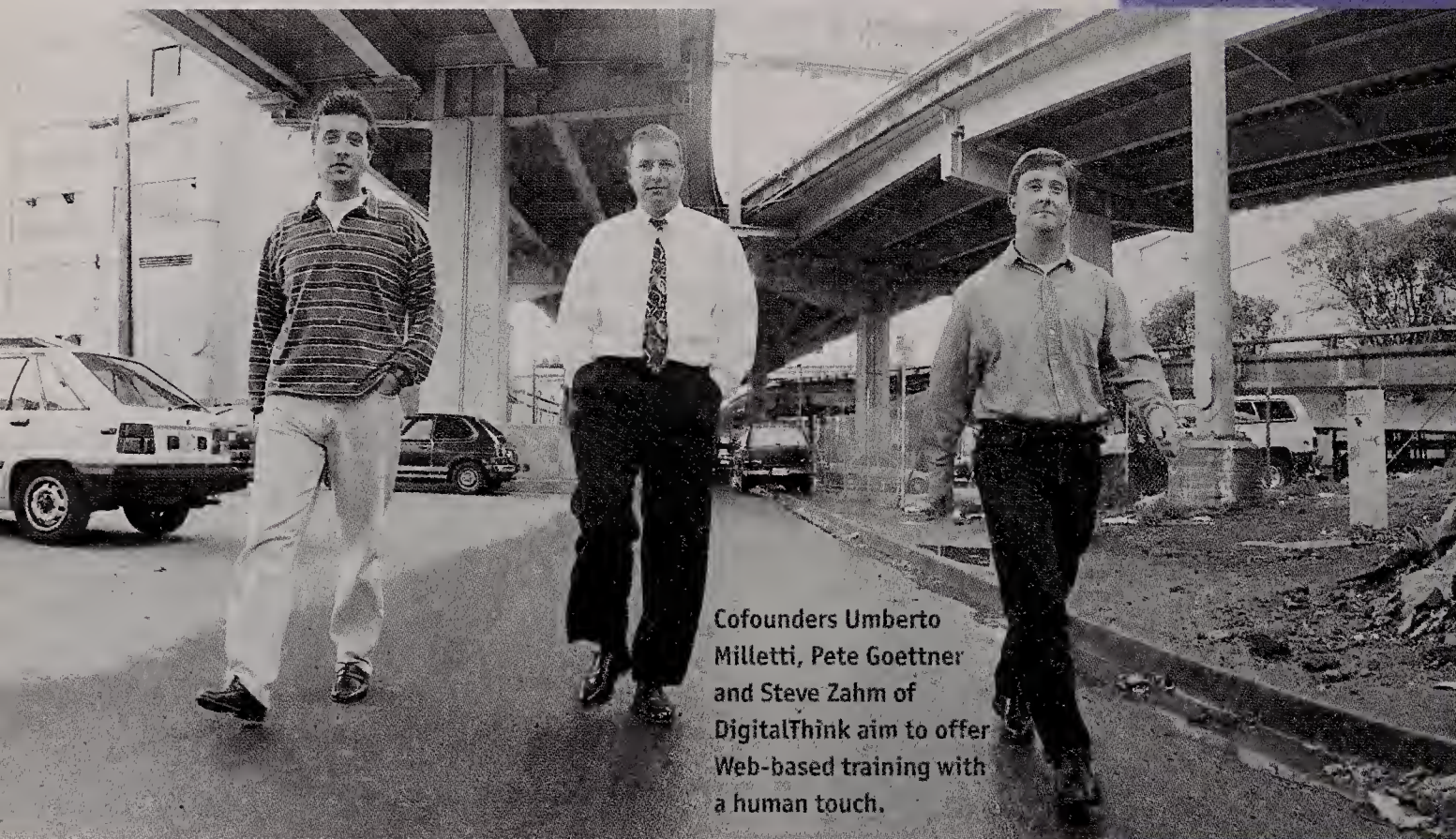
Eventually, i-Escrow might strike partnerships with online newspapers. But for that to happen, online classifieds have to do a better job of supporting e-commerce. Right now, Chavez says, most ads don't include e-mail addresses.

—Megan Santosus

Internet Profile .3

Internet Class Act

No more classrooms, no more books, no more teachers' dirty looks—at least not as far as DigitalThink Inc. is concerned. The 2-year-old startup offers Web-based technology training to corporate IS employees and end users. Instead of having to trudge off to stuffy classrooms, employees who register for special training use a browser to travel to DigitalThink's Web site (www.digitalthink.com). Sitting at their own computers, they can tackle a C++ or Java course prepared by a leading high-tech book author, says Steve Zahm,



Cofounders Umberto Milletti, Pete Goettner and Steve Zahm of DigitalThink aim to offer Web-based training with a human touch.

director of marketing at the San Francisco-based company.

But DigitalThink's online training—unlike traditional CD-ROM instruction—does provide students with human support, he says. The company's 55 employees include tutors who grade programming assignments. Students can tune in to a scheduled online session with an instructor, use instant messaging to attend a tutor's "office hour" and post discussion group messages. And for up to 6 months after they finish their courses, students who e-mail homework questions to tutors can expect answers within 24 hours. "We've kind of put the human element back into self-paced training," Zahm says.

Students whose employers don't open corporate accounts can register for courses by phone, fax or via DigitalThink's Web site. Its snappy user interface maintains the classroom theme, and each student gets a password to a private online "locker," which leads to the courses and classmates.

Digital Equipment Corp.

www.digital.com

In 1993, Digital was among the first businesses to venture onto the Web. Since then, the site, which has grown to 60,000 pages, has generated about \$2 billion in sales and saved millions more on printing, faxing, advertising, telephone, customer service and software-distribution costs.

DLJdirect Inc.

www.dljdirect.com

More than just a stock quote site, DLJdirect offers comprehensive information and utilities, including proprietary interactive investing tools such as FundScan and StockScan database search tools. DLJdirect is the only online broker offering investors the opportunity to interactively participate in new stock offerings online.

Education News and Entertainment Network

www.enen.com

NetSeminar, the network's flagship service, allows companies to broadcast live interactive multimedia presentations over the Internet by incorporating video, audio and chat interactivity between speakers and participants. Entry-level NetSeminar presentations and services, which can reach thousands of people worldwide, start as low as \$6,000—a bargain compared with the cost of bringing those far-flung folks together in person.

Florida Government Services Direct

www.state.fl.us/owa_gsd/owa/main.homepage

This knowledge gold mine offers an almost unimaginable range of resources for Florida residents and local governments. Users in both networks find information and opportunities faster than ever, allowing them to share resources, eliminate duplication and explore new partnerships.

DigitalThink Inc.

DigitalThink Web-Based Training

www.digitalthink.com

What better place to learn Java programming, Web technologies or Internet literacy than on a Web site? Since January 1997, DigitalThink's site has offered training on these and other topics to more than 20,000 learners worldwide.

PHOTO BY STEVE MICROS



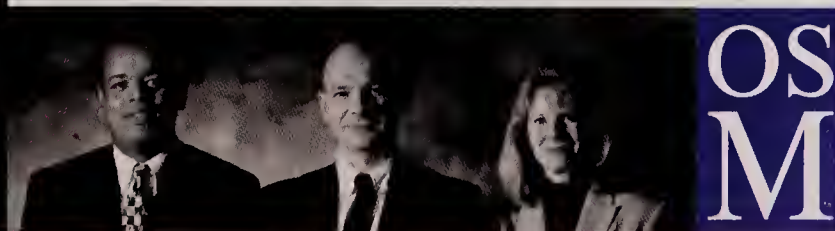
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STOCKHOLM FRANKFURT LUXEBURG VIENNA ZÜRICH MELBOURNE SYDNEY HONG KONG SINGAPORE TOKYO

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Internet winners

The average 10- to 12-hour course costs \$325 per student, but prices range from \$125 for end-user training in Microsoft Word (due this summer) to \$425 for an advanced Java Beans class, and volume discounts are available. By year's end, Zahm says, the company's course catalog will have doubled to include over 100 classes.

DigitalThink has trained more than 30,000 students. Corporate customers include Merrill Lynch and Johnson & Johnson. Texas Instruments Inc. and Adobe Systems Inc., whose venture capital arms were among DigitalThink's early investors, are also customers, as is Intel Corp., another investor.

Although DigitalThink has been developing custom courses for company intranets and Internet sites, off-the-shelf courses will continue to constitute the bulk of its business. "It's kind of like Web-based training with no assembly required," Zahm says. "I can roll out a course on NT administration worldwide to a company in 10 minutes."

—Sari Kalin

Internet Profile .4

Exhibit A Online

Attorneys like props. Prosecutors and defenders alike rely on such physical exhibits as crime-scene floor plans and cutaway car models to illustrate testimony or support their arguments. No two cases are identical, so the props aren't either. For the most part, they're custom-made at no small cost.

Consequently, lawyers, insurance companies and others who commission exhibits are exceptionally demanding customers with exceedingly specific expectations. Most would love to see works in progress. In the past, if lawyers, witnesses and designers weren't in the same city, preliminary viewings were tough to arrange. So clients, hoping for the best, sat tight and waited expectantly for finished products.

Using the Web, the Visual Evidence Center (www.visevidence.org) of Caledonia, Mich., has changed all that. The exhibit design firm has built a password-protected Web site that allows its far-flung clients to see and comment on works in progress. Not long ago, for example, a designer at the company's headquarters near Grand Rapids arranged a conference call with an attorney in the Upper Peninsula a few hundred miles north and an expert medical witness across the state at the University of Michigan in Ann Arbor. As they spoke, all three logged onto the Web site, where they examined and discussed drafts of illustrations for a pending medical case, and the designer made suggested modifications under the watchful eyes of the other two.

Until recently, the 12-year-old exhibit company concentrated on local clientele. "We found it was expensive and time-consuming to reach out and work with attorneys" in the heavily populated Detroit area, a three- to four-hour drive, recalls O. Nick Unger, Visual Evidence Center's CEO. Now even nearby lawyers are inclined to conduct exhibit business entirely online, and by listing its Web site on many search engines, Visual Evidence has attracted new customers from as far away as California.

Overall, business has increased 30 percent since the center went online in December 1996, Unger says. Web and e-mail use cut travel and telephone expenses and, in some cases, shipping costs. To accommodate a North Carolina client who was up against a crushing dead-



ILLUSTRATION BY ROBERT NEUBECKER

Gulfstream Aerospace Corp.

www.gulfstreamaircraft.com

This aircraft manufacturer's site lets users order spare parts and make purchases from an online store. It's also increased market awareness of the company's products so much that executives are beginning to credit it with increasing aircraft sales.

HomeShark Inc.

www.homes shark.com

Searching for a home—particularly now, when real estate sales are booming—can be time-consuming and frustrating. HomeShark Inc. aims to make the process simpler, cheaper and more enjoyable for buyers through its Web-based mortgage-information and home search services. There's also content for owners, including refinancing information and a home-valuation service.

i-Escrow Inc.

www.iescrow.com

This startup company serves as a middleman for online transactions between individuals. Once a buyer and seller have arranged a sale through i-Escrow's site, the company ensures that each party fulfills its end of the shipping and payment agreements.

Industrial Management Council, Rochester, N.Y.

Greater Rochester Chamber of Commerce
County of Monroe, N.Y.

City of Rochester

SmartDog

www.smartdog.org

To draw high-tech workers to the Rochester area, this witty recruiting site gives "smart dogs" a taste of life outside the fence. Companies and organizations belonging to a nonprofit collaborative post jobs; prospective employees can apply online, file their résumés in a job bank and learn about Rochester-area housing, lifestyle and attractions.

REPEAT WINNER

Innvest: America's Hotel Online Superstore

www.innvest.com

This free hospitality-industry trade site has upgraded to let members buy, design, post and delete ads for properties, products and résumés online in real-time. The site attracts nearly 2,800 users weekly; visits last an average of 12 minutes. Onsite testimonials directly credit the site for enabling major sales.

Hotels Poland

www.hotelspoland.com

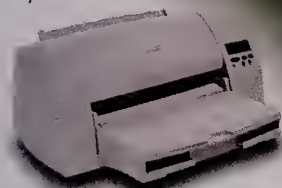
On behalf of customers worldwide, Internet Polska's site negotiates and secures hotel rooms in Poland at 20 to 40 percent off regular rates. Handling transactions entirely online keeps costs low. The company expects to launch similar services for the Czech Republic and Hungary this summer.

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COLORFUL PEOPLE FOR LEXMARK

Internet winners

line, Visual Evidence electronically transmitted documents the client had approved online to a photocopy shop in the client's hometown. Using high-end printers, the shop "quickly generated poster-sized exhibits, and we didn't have to ship full-sized posters on foam core and worry about them getting lost or smashed," Unger says.

Because "everything that we send out has our e-mail and our Web site address on it," Unger adds, Visual Evidence has also been able to reduce its costly specialty-magazine advertising. —Anne Stuart

Internet Profile .5

Political Science

The idea came to Eric Tanenblatt during a conference in Washington, D.C. One of the speakers mentioned that during Great Britain's 1997 elections, a nonpartisan Web site informed voters of each candidate's positions and even printed the text of a political debate. "I came back wondering if we could do that and thinking that it was an off year for

PHOTO BY JOHN GILROY



An interactive Web site allows the Visual Evidence Center to expand its business beyond local clientele, says CEO O. Nick Unger.

International Communications Inc.

www.intl.com

Available in 10 languages, this site supports International Communications' business of "localizing" Web sites for different cultures. Visitors will find information, articles, tips and other resources online, and can subscribe to a free monthly e-mail bulletin on localization issues.

Company officials credit the site, which doubles as a sales demo, with providing 20 qualified leads in six months.

Kansas City Power & Light Co.

www.kcpl.com

This company, whose services include electric, gas and sanitation, provides customers with the following information: payment history, current bill, usage history, demand history and daily usage (in both table and graph format). Customers can also pay their electric bills online. What has your electric company done for you lately?

LeaseSource

www.leasesource.com

LeaseSource, a Web site that tells users everything they need to know about leasing an automobile, may be the best example of the Web's ability to create new intermediaries. The site connects users to leasing companies and insurers. Lessors pay for postings.

Liberty First Financial

Loanguide.com

www.loanguide.com

Built on a shoestring budget by three guys working out of a garage, Loanguide has led as many as 30 borrowers a month to Liberty First Financial. The site is a hype-free gold mine of information about the loan process, allowing users to compare rates, terms and other costs.

Multimedia Live

ShopperZone

www.shopperzone.com

This site offers catalogs from more than 15 companies, allowing users to order via a single easy-to-use shopping cart. Among its nifty tools is "Shopper's Buddy," which lets users select virtual personal shoppers such as Ken, a 30-something entrepreneur, and Jill, a 40-ish human resources executive. The site engine, designed for syndicated selling, can add commerce capability to other content sites.

NECX Inc.

www.necx.com

The company describes itself as an open market buying and selling service for computer products and electronic components. On the NECX Web site, customers can track the availability and price of more than 60,000 products from 1,100 suppliers. In 1997, NECX.com tallied \$60 million in revenues, or about 15 percent of the company's total revenues for the year.

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Internet Winners

elections in Georgia. Then," says Tanenblatt, a vice president of Atlanta-based Duffey Communications, "I remembered the mayoral race."

Working with the Atlanta Press Club, which was planning to sponsor a televised debate, Duffey Communications put together a Web site that told voters much of what they needed to know about the candidates' personal histories, political records and their platforms. The site (www.atlpressclub.org) launched Oct. 21, almost two weeks before the first debate. Traffic was initially sluggish. But in response to some local publicity, traffic picked up before the second debate between the two final candidates, incumbent Mayor Bill Campbell and City Council President Marvin Arrington.

During that debate, the Web site invited users' participation at both ends of the pipeline: Many questions asked of the candidates were fielded from e-mails that concerned voters had earlier submitted to the site. Within three hours of the debate, the Press Club had posted transcripts of questions and answers. And unlike debates broadcast over traditional media, this one remained available on the Web site for weeks after the dust had cleared. Web users were able to review the text of the questions and to hear the candidates' answers using either RealAudio or telephone.

Having presented Georgia's first Web-accessible political debate,



**Vice President
Eric Tanenblatt of
Duffey Communications
helped the Atlanta Press
Club build Georgia's first
Web-accessible
political debate.**

the site made history, but its immediate impact was less than thunderous: About 3,000 people visited the site during election season.

Duffey, a public relations, marketing and public affairs company with offices in Atlanta and Washington, D.C., had built the site pro bono and had pumped some \$35,000 of the firm's money into the project, hoping that the visibility would attract new public affairs clients. Did it work? "It's hard to say," says Tanenblatt. "We've used the site in presentations to prospective clients, and some of them have signed on. So it may have influenced their decisions."

Nevertheless, the Press Club partnership was successful enough to confirm Duffey Communications' commitment to the Web. Next year, Tanenblatt says, the company hopes to build sites to keep citizens posted on Georgia's senatorial and gubernatorial races. —Art Jahnke

PHOTO BY SONNY WILLIAMS; ILLUSTRATION BY ROBERT NEUBECKER

Northern Light

www.nlsearch.com

At Northern Light, the site is the product. Growing at a rate of about 50 percent a month since its August 1997 launch, this business-research site provides access to a diverse range of business information. Northern Light has integrated two highly competitive industries, the Web search engine market and the information delivery and commerce market.

Office Depot Inc.

Office Depot Online
www.officedepot.com

Office Depot's admirably designed online store fits seamlessly with its traditional office-supply business. It opened up new markets and cut order processing costs. Shoppers build custom shopping lists from an online catalog with thousands of items; they can either pick up their purchases at a nearby store or receive delivery the next day.

PC ServiceSource Inc.

PC Service Net
www.pcservice.com

Allowing computer service centers to check inventory, order parts and track warranties real-time, this site has drawn more than 10,000 new registered customers to PC ServiceSource, a distributor of warranty, out-of-warranty and end-of-production service parts for more than 30 PC and printer makers. The PC Parts Net area of the site has done more than \$9.6 million in sales and represents roughly 10 percent of all sales.

PsicoNet

psiconet.com

Created by Argentine psychoanalyst Michel Sauval, this nonprofit, Spanish-language site offers seminars, professional papers and chats for mental health workers. More than 700 have signed on as members.



The Sabre Group

Travelocity
www.travelocity.com

This site, among the Web's first, richest and most robust online travel resources, offers 24-hour global travel planning services. Its FareWatcher e-mail service monitors pricing, automatically alerting users about price changes. A section called Today's Lowest Fares targets popular destinations.

Samsung Electronics Co. Ltd.

Welcome to Samsung Electronics
www.samsungelectronics.com

With its lists of frequently asked questions (FAQs) on products from monitors to microwave ovens, Samsung's corporate Web site saved about \$600,000 on the costs of answering those same questions by phone or e-mail last year. The site also links to online stores for U.S. and Korean customers.

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Internet winners

Internet Profile .6

Bumper Crop

Long past is the day when farmers could depend on the benevolence of earth and sky to make their living. Today, those in the multibillion-dollar agriculture industry are regulated over everything from biotechnology to food assistance for the poor.

The American Farm Bureau Federation—a nonprofit organization with more than 4.7 million members—offers a comprehensive, compelling site to address those wide-ranging concerns.

The Farm Bureau's Web site, Voice of Agriculture (www.fb.com), serves an eclectic community of farmers, researchers, ranchers, journalists and curious Web tourists. Its staff—one full-time Farm Bureau public relations staffer and four other staff members who contribute their time—post daily content updates. Regular contributors include Lana Robinson, who pens "Little Spouse on the Prairie" from her home in Texas. A weekly feature highlighting other sites of interest provides access to the latest on topics as diverse as El Niño, U.S. Department of Agriculture data, and the ins and outs of collecting toy tractors.

"The site has helped increase member and public awareness of the Farm Bureau," says Rick Bush, editor of online services for the Voice of Agriculture. "It has also improved our media relations because of the timely access to news releases and columns."

Launched in early 1997, the Voice of Agriculture now attracts 4,500 active users daily. As varied as the offerings at a roadside market, the site provides instant access to such resources as daily closing prices from the Chicago Board of Trade, weather maps and details on Earth Day celebrations. Online forums let users swap views about topics such as the President's Food Safety Initiative and agricultural research in U.S. wetlands. For visitors who want to reach people in power, the site offers e-mail links to members of Congress.

A recent Farm Bureau survey shows that more than a third of the nation's 18- to 35-year-old farmers access the Internet and about 77 percent of them use computers on their farms. Now rural Americans can supplement the sweat of their brow with a less backbreaking chore: harvesting the Web for useful information. —Ruth Greenberg

Internet Profile .7

Clear Days on the Web

What makes weather.com so appealing? Perhaps this year it's concern about El Niño. Possibly, it feeds everyone's love for talking about the weather. Or it could be weather.com makes it so easy to find information that people just can't stay away.

It's so easy, in fact, that, according to Media Metrix, weather.com is the Web's most popular single-content site. Currently, the site gets 82 million monthly page views, and that number continues to grow by about 20 percent every month. About 3 million unique users visit weather.com monthly.

Content goes far beyond forecasts. If, for example, after determining that the weather forecast is promising, you decided to schedule a golf vacation, you could take advantage of one of weather.com's many partnerships and book your tee time. Or you could turn to weather.com

Swedish Post Office www.posten.se

In Sweden, the post office of the future is already here. Online customers can check postal rates, buy stamps, fill out address-change forms, track packages and link to e-commerce sites. And yet the site is uncluttered and inviting, easy to navigate with simple pictures and clear menus.

Thomas Publishing Co.

Thomas Register on the Internet

www.thomasregister.com

This site, which serves buyers and sellers of industrial products and services, received \$16 million in new revenues from selling register listings to manufacturers. User-friendly, comprehensive and efficient, the online registers boasts 10 million page views a month.

REPEAT WINNER

Trade Compass

www.tradecompass.com

Trade Compass provides customized desktop access to 15GB of constantly updated global trade news, data, tools and resources. Recent innovations include exclusive rights to publish the OAG air cargo schedules and tariff data and creation of a Caravan Internet EDI service center, which provides integrated business applications and cargo-transportation-trade processes for businesses worldwide.

University of Minnesota

Minnesota Landscape Arboretum

www.arboretum.umn.edu

Walk in the woods. Follow the changing seasons. Become an arboretum member and learn how horticulture can transform your living space. The site extends the mission of the arboretum in a scenic manner.

Tennessee Valley Authority

Land Between the Lakes
www.lbl.org

Too much work have you tied to your desk? Take a virtual vacation at this visual buffet promoting a national recreation area. In addition to pages of information on where to stay and what to do, the site offers online maps, a virtual visitors' center and interactive quizzes to educate visitors about the region's history and environment.



ILLUSTRATION BY ROBERT NEUBECKER

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Internet winners

for information on the best ski conditions. In warmer weather, you might check forecasts for advice about what to plant in your garden or, if you have allergies, whether the pollen count's high enough to justify staying indoors. Through an innovative agreement with BizTravel.com, weather.com even lets users book their flights online.

Weather.com shares the extensive resources of The Weather Channel, which is also owned by privately held media conglomerate Landmark Communications Inc. With a staff of more than 80 full-time meteorologists in addition to its dedicated Web team of about 25 people, weather.com gets the daily attention such a heavily trafficked site deserves.

The site's promotional resources are unique among this year's 50/50 winners: None of weather.com's competitors is blessed with a regular television presence directing viewers to its Web site. "This helps us build our brand equity along with our site traffic," says Todd Walrath, vice president of online services. Nor is Landmark afraid to put money into the site. "The company sees the new medium as a primary source of revenue in the future," says Walrath.

To continue to boost revenues, Landmark is extending The Weather Channel brand into other media. Having established additional part-

PHOTO BY SONNY WILLIAMS; ILLUSTRATION BY ROBERT NEUBECKER



Thanks to a complementary television presence, weather.com builds its brand while it boosts its site traffic, according to Todd Walrath, vice president of online services.

nerships with cellular phone and pager companies, Landmark can deliver weather information directly to people's hands and ears. These days, there's just no excuse for getting caught in the rain without an umbrella.

—Steve Singer

U.S. Department of Energy's International Nuclear Safety Program

Improving International Nuclear Safety

insp.pnl.gov:2080

The Weather Channel

www.weather.com

With more than 2 million unique users each month and 3.5 million page views each day, weather.com complements the famous cable channel by letting people



Reactors, not bombs, are what this site is all about. The site offers visitors a payload of information about nuclear energy issues, including the history of nuclear reactors, the spread of reactors to countries around the world and the agency's efforts to keep them safe.

Visual Evidence Center

www.visevidence.com

This organization, which custom-makes courtroom exhibits for attorneys and insurers, uses the Web to collaborate with clients and to communicate statewide with its 30 exhibit consultants during the design process. Clients can view paper, 3-D scale models, video or animated exhibits online. Owners credit the site with increasing sales by 25 percent, saving time, attracting distant clients and cutting mailing costs.

get the same kind of comprehensive, up-to-date weather information online.

WhoWhere Inc.

www.whowhere.com

WhoWhere lets users peruse free phone, e-mail and URL directories; establish free e-mail accounts, home pages or directory listings; and link to other resources. WhoWhere also private-labels its network applications for more than 40 corporate partners. Revenues have doubled for five consecutive quarters.

Williams & Wilkins Co.

Williams & Wilkins Online Superstore

www.wwilkins.com

This medical publisher, a past 50/50 winner for its intranet, wins this year for its new public Online Superstore. The fully automated outlet, which replaces an earlier, static sales site, boosted orders by 25 percent and online revenues by 70 percent; 1998 profit margins are projected to double.

Make it small.
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The Birth



of the Do's

The baby fat's melting away. **Intranet** sites that once might have settled for being big, happy buckets of information are converting calories into operational muscle.

By Lew McCreary

ILLUSTRATION BY LARRY GOODE



prising number of intranets took aim at operational targets, providing some fairly ambitious transactional capability and enriching their organizations with a spirited Calvinist work ethic.

That trend continues this year. Among the nearly 200 entrants in the intranet division of the CIO Web Business 50/50 Awards, many were pushing at this operational envelope. (For this year's judging, as in 1997, business-to-business extranets were considered in the intranet category.) In fact, we did an unscientific statistical analysis of the winning entries to gauge their degree of operational ambition. Once we had chosen our final 50, we sorted them into

Intranets are a little like newborns: Just getting here is a lot of work, so afterward they feel entitled to lie around and focus on the basics. These sites take on fuel, assert themselves and grow like happy babies until, inevitably, the time comes to get off the dime and go out there and *do something*.

Truth is, we figured the interval of taking on fuel would last a lot longer than it actually did. Last year's 50/50 Awards showed us we had been conservative in our expectations. Intranets and their parents were getting bored and going out there and *doing something* at an accelerated pace. Rather than existing as fat, happy buckets of information, a sur-

half a dozen descriptive categories:

- Broad operational application-supporting sites (addressing multiple operational areas or broad business processes)
- Narrow operational application-supporting sites (addressing a single narrow business process or application, such as benefits enrollment)
- Intranet/extranet hybrids (intranets that selectively admit customers to password-protected areas)
- Customer-care extranets (full-featured customer service/self-service or commerce-supporting sites)
- Internal information sharing/decision support sites
- Advanced knowledge-management sites

Of the 50 winning entries, 31 performed predominantly operational roles in the form of robust transactional, process-interaction or workflow-enhancing capabilities. Of the remaining sites (those largely devoted to internal information sharing/decision support or to excellence in knowledge management), most offered implicit (and some explicit) benefits to internal decision-making quality, employee productivity, customer satisfaction or product-delivery cycle time. In short, nothing to sneeze at.

Among the winning sites were many more highlights than there is space to recount them. But a look at some of the best and brightest reveals there isn't a bucket in the bunch.

Broad Operational Sites

There's a clear intention in many organizations for the intranet to become the sole desktop utility of record. At **Chrysler Corp.**, the place to be is Dashboard (gotta love that name!). Sponsored jointly by HR, IS and corporate communications, Dashboard has Swiss Army Knife ambitions: Its goal is to increase the productivity of 40,000 or so salaried employees by simplifying information access. Through this straightforward interface, users can get at competitive intelligence, collaborative workgroup support, HR self-service apps (including records administration), financial modeling tools, company news, a dynamic stock feed and mutual fund quotes, a vehicle-build tracking system, manufacturing quality statistics and other tools and resources.

For years, government agencies have been challenged to become more efficiently businesslike. So when Capt. Michael Davidson, director of the division of commissioned personnel at the Program Support Center, a part of the **U.S. Department of Health and Human Services**, saw the convoluted mess of weird and ill-fitting procedures that encumbered medical insurance claims activities, he vowed reform. The resulting intranet, Beneficiary Medical Program, puts the agency's health insurance services covering commissioned officers of the U.S. Public Health Service and the National Oceanic and Atmospheric Administration on a sound footing. The sys-

tem provides end-to-end workflow and processing for all claims, enables enforcement of negotiated fee-for-service levels (at a claimed savings of \$1.5 million annually), consolidates relevant information for access through a single interface and empowers beneficiaries to resolve claims issues on their own. All of which seems unlike the image not only of government but also of insurance claims processing as many of us in the private sector have woefully come to know it.

Narrow Operational Sites

The human resources function has arguably been the most fertile hotbed for low-hanging intranet fruit—and one of the best ways to trick employees into becoming frequent browsers. **Lucent Technologies Inc.**'s Benefits Central, serving the 100,000-plus people of Lucent Technologies, automates benefits enrollment transactions and enables employees to do side-by-side self-service comparisons of benefits offerings, leading to better-

informed selections and fewer subsequent changes or points of confusion. The site supports personalization of dynamic content, keyed to the user's log-

on. Benefits Central—soon to be incorporated into a larger Lucent informational HR site known

as iON.HR (sterling in its own right)—played an important ancillary role in asserting Lucent's newly independent corporate

identity after its 1996 spinoff from AT&T.

"Not 2 couches and 10 lamps...I said 10 couches and 2 lamps!" Simply stated, **Allied Van Lines'** Agent Notification System is intended to make sure that the right trucks pick up the right stuff at the right time. And that means enabling Allied's network of 500 independent agency locations to receive the most current information about customer shipments. In dealing with independent affiliates, there's no stick, only a carrot. So the challenge for Mary Mancuso, manager of agent support services, is to win over the agents' hearts and minds with the vision of higher productivity—and the associated ROI. Once fully deployed (as of April, only 15 percent of the 500 agency sites were on board), Mancuso projects that the flow of timely order information will save agents a total of more than \$6 million annually. For Allied corporate, the anticipated benefit of improved information quality will be more—and more satisfied—end customers.

Intranet/Extranet Hybrids

Toshiba America Information Systems Inc.'s Electronic Imaging Division (EID), a maker of fax machines and copiers, interacts with employees, dealers and distributors over Internet FYI, bundling in one big tent the company's business-to-business e-commerce, transaction processing and internal information sharing. But the bread-and-butter role of this site is to support EID's independent dealer network. And in a hotly competitive office-equipment market, strong dealer relations are a decisive competitive advantage. Under

There's a clear intention in many

organizations for the intranet to become

the sole desktop utility of record.

the direction of Lisa Richard, Toshiba EID vice president of business planning and operations, the site saves dealers time and money and simplifies complexity, speeding up the spare parts replenishment process and allowing dealers to trim parts inventories. That's no small achievement, since EID offers 40,000 spare-part SKUs.

Progress Software Corp. is a vendor of Web and client/server application-development tools. Among the company's main customers is a global network of third-party developers who create vertical business solutions using Progress technology. The Progress Enterprise Solution Catalog is, on one level, an online mart where these vertical apps can be shared by developers with their own potential end customers. Since Progress has development partners in a host of countries, the site is multilingual. Besides showcasing its partners' output, the extranet portion helps Progress more efficiently interact with and support developers at all stages of the product cycle. The site provides an easy venue for partners to locate one another and form alliances. In effect, this site is a three-way hybrid of intranet, extranet and public Internet supporting a complex extended family of relationships.

Customer-Care Extranets

IntelSat is a global satellite communications provider with a base of corporate customers spanning more than 200 countries. The IntelSat Business Network (IBN) gives customers real-time access to available satellite inventory and enables easy online ordering of service. In a business where the available capacity can fluctuate rapidly (and where there are quite a few competing alternatives), this is a very good thing to be able to do. But IntelSat goes farther, offering customers online content to foster a sense of participatory community. For instance, it recently presented live streamed video coverage of a satellite launch, prefaced with lots of behind-the-scenes information on what goes into preparing for the launch. Such "special events" help create a more loyal customer relationship in what might otherwise be thought to be a commodity industry. (*CIO Web Business* will profile IBN in an upcoming issue.)

Internal Information Sharing

Community building is partly the focus of @Millipore, the intranet of **Millipore Corp.**, a Mass.-based maker of purification products for scientific and chemical markets. There is an appealing quality to @Millipore, as though its sole objective is to make being an employee of the company as pleasant an experience as possible. Many of the service areas and other content offerings are charmingly prefaced with "Milli" this and "Milli" that: MilliCreditUnion, MilliHealth, Millitainment (alas no MilliVanilli). The site features lots of self-service areas, like expense reporting, travel booking and business-card ordering, and also pushes to employees information culled from 120 subscription-based corporate databases.

Delayed decision support is the aim of intranets from both **The Dow Chemical Co.** and electric and gas utility company **Houston Industries Inc.** (HI). HI's EMSweb (for Energy Management System) has strong operational components, feeding real-time data to facilities managers for their use in power

generation and transmission, and fuel-buying activities. The availability of this operational information has created a flatter process-management structure that delivers improved efficiencies. The Dow Intranet aims to be a unifying information gateway for the thousands of geographically dispersed employees of this highly complex company. Perhaps most interesting in Dow's approach is its apparently successful use of "information stewards" to push down decision making about intranet content to the most knowledgeable levels. Use of the Dow site is widespread, with 42,900 employees accounting for between 40,000 and 75,000 accesses daily.

Advanced Knowledge Management

This is our "rich getting richer" category of intranet excellence. Several of this year's winners are recidivists touting impressive updates to sites that wowed us last year. **Perot Systems** offers some interesting ROI metrics based on productivity enhancements enabled by TRAIN, its knowledge intranet: customer proposal development time cut 60 percent, proposal development cost cut 45 percent, travel time for business development cut 35 percent, time to market for new product/service offerings cut 40 percent. This year the site has added benefits enrollment and online procurement support. It collects 2.1 million hits a week and is used by 4,800 employees. One of TRAIN's founding purposes was to educate the huge number of new hires joining Perot Systems. In a business that last year alone acquired 11 companies and grew by 30 percent, that remains important. In fact, despite the company's growth, HR head count remained flat due to the support provided by TRAIN. Knowledge Today, the intranet site of the **U.S. Atlantic Command**, is also a repeater. This year's version is joined by two other military command organizations: the U.S. Special Operations Command Atlantic and the U.S. Second Fleet. Indeed, part of the excellence of this year's submission is the extent to which the champions of Knowledge Today have evangelized, benchmarked and shared with other military groups. (See "Joining Forces," *CIO Web Business*, Dec. 1, 1997, available on the Web at www.cio.com/archive/webbusiness/120197_navy.html.) Also, in keeping with the broad and easy utilization requirements of any effective KM effort, the site's proprietors have developed a dynamically created "Express" version of the content for access by remote users dialing in on slow (9,600 baud) secure modems.

Extra Credit

Finally, in its own separate category of budding future excellence, we have the **Newaygo (Mich.) Public Schools** intranet (see "Intramural Communication," Page 60). Lunch menus and scrolling sports scores on the home page are the icing; internal communication with broad access by teachers, students and staff are the cake. And Newaygo's vision is to foster the intranet as the first, last and only stop for schools-related info. If the future of intranets is in the hands of the likes of Newaygo's all-student Tech Team, we look forward to future 50/50 competitions. **CIO**

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Blue on Blue



Two winning
efforts from
the U.S. Navy:

One saves money; one saves time.

By Sari Kalin

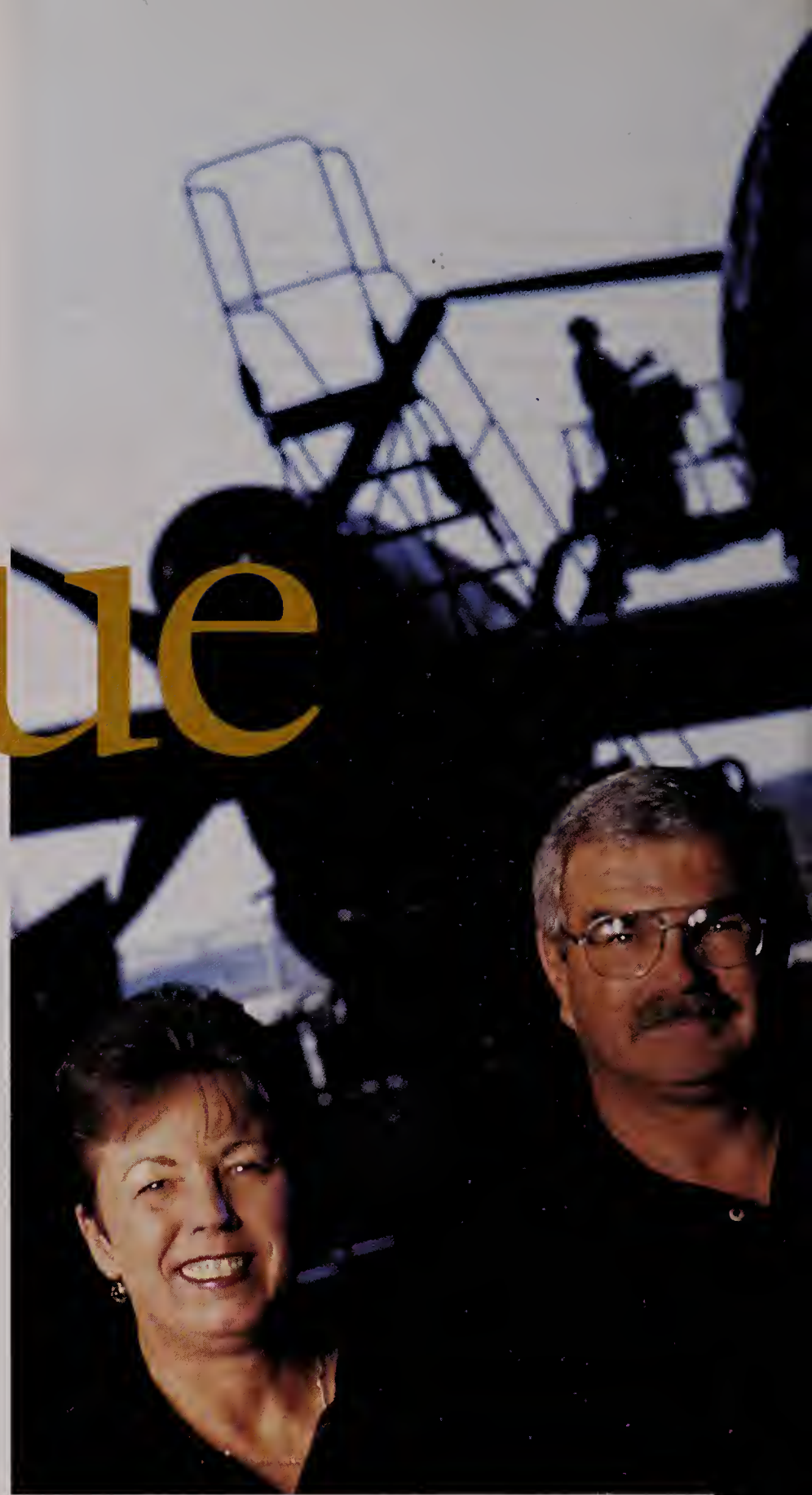
Intranet Profile .1

In the Navy, sailing the seven seas is the easy part. Navigating the oceans of paperwork is another story. As two of our winning 50/50 entrants have discovered, the Web can help. In Jacksonville, Fla., an extranet allows Naval aviation engineers to share technical specs with The Boeing Co. in St. Louis to keep a fleet of Boeing-built and Boeing-maintained training jets in the air. A thousand or so miles away, at a sprawling R&D Navy base in Newport, R.I., an intranet is making data sharing, training and purchasing easier and cheaper for undersea warfare scientists and engineers. On a January day in 1996, a Navy instructor flying a T-45 Goshawk training jet had the kind of mishap that would rattle the most experienced aviator: The plane's throttle jammed,

and the throttle cable snapped. Luckily, the instructor was experienced enough to land the plane safely, says Lisa Crawford, technical team leader, extranet administrator and webmaster for the T-45 support team at the Naval Aviation Depot in Jacksonville. But the fleet of orange-and-white training jets had to be grounded on an airfield in Kingsville, Texas, until Navy engineers in Jacksonville and Boeing engineers in St. Louis could figure out what went wrong.

The engineers spent precious hours poring over engineering drawings, searching for a likely point of failure. But they found none because they were examining drawings from a Navy database, not directly accessing the Boeing database. As it turned out, the failure was caused by a small groove that wasn't shown in the Navy's copy of the drawing.

Finally, after they had wasted 36 hours and untold dollars on the grounded fleet, a crew of engineers who had dissected the throttle cable spotted the problematic groove. "It was extraordinarily frustrating for the engineers," Crawford says.





Flying High: Vivian Alkire, Rick Lloyd, Lisa Crawford, Carl Sawyer, Cindy Graham and Elizabeth Nealin work together on GOSNET, an intranet linking the Navy's T-45 team and their counterparts at Boeing.

"They realized how time-critical this was."

The embarrassing and expensive snafu illustrates the difficulties of working as a team when your teammates, scattered across the country, are relying on different sets of books. And it was just these kinds of communication problems that compelled the Navy's T-45 team and their Boeing counterparts to build GOSNET, an extranet that connects several hundred Boeing and Navy employees, sharing engineering and other data across state and organizational lines. Now, using GOSNET, a Jacksonville-based engineer can post his repair documents and diagrams online, and a mechanic in Kingsville can start reviewing them days before official repair

paperwork makes its way through the system. The latest engineering drawings will also be available soon over GOSNET, preventing version problems like the one that held up the throttle cable repair.

Years ago, Jacksonville explored the possibility of developing a client/server system to handle similar tasks. But access was slow for users outside Jacksonville, and there were compatibility problems. The extranet's advantages are obvious. "All you need is a browser," says Elizabeth Nealin, T-45 FST leader & GOSNET senior project manager. "We don't have to load special software on your system." Jacksonville was also able to pull together its end of the pilot from the scrap heap,

spending just \$14,500 on hardware and software for the pilot. It began enrolling users in the pilot in November 1997, months earlier than expected. In conjunction with the official full rollout in May of this year, the Navy will spend another \$120,000 on hardware and software for the project, buying separate development, production and backup servers.

One of the biggest obstacles in building the extranet was setting up a secure system. The

extranet uses SSL encryption and runs over the Navy's wide area network, to which Boeing has a connection, says Rick Lloyd, network manager at Jacksonville. But it was a hassle to get access through every location's firewall. In the future, Lloyd says, Jacksonville would like to make it possible for select people to log onto the site over the Internet, via a reverse proxy server.

Parallel Web teams in Jacksonville and St. Louis run GOSNET, and the Navy and Boeing are equal partners in content creation. Boeing GOSNET Administrator and Webmaster Jeff Maaks notes that at times he and Crawford have squabbled a bit over who would host what data. They have each had to make concessions, such as on where to host a particular data item.

Because of this dual control, content resides on servers and taps databases in both St. Louis and Jacksonville. But since Jacksonville's and Boeing's user directories are not synchronized, GOSNET users must log in twice with two different passwords and user IDs—once when they want to access Navy data and a second time when they want to access Boeing data.

Even with the password hassles, users at Boeing and the Navy still rave about the system. In Kingsville, George Peterson, a Boeing aircraft support manager for the T-45, can now upload daily aircraft status reports to GOSNET. That saves him having to fax and e-mail information on 75 jets to 30-odd people in Kingsville, Jacksonville and Patuxent River, where the Navy's T-45 program manager resides. And the fact that he himself, like many other content owners, posts new data saves Crawford and Maaks having to make the updates. Meanwhile, Arlen Bowen, an avionics engineer in Jacksonville, can track Peterson's status reports to check flight time and status. He can also use GOSNET to post his engineering investigation reports, complete with digital photos of damaged components, a function that lets him share images with his Boeing counterparts in St. Louis, augmenting his pre-GOSNET text-messaging method of alerting them to a problem. Says Bowen: "A picture is worth a thousand words."

Yesterday's Paper

The Naval Undersea Warfare Center (NUWC) Newport Division is in the same post-Cold-War boat as U.S. military installations around the world. NUWC Newport's budget has shrunk from \$1.2 billion in 1994 to roughly \$750 million this year. And since 1992, it has had to absorb staff from three other bases yet cut

the overall head count by nearly a third. "A lot of what we do here," says Division Commander Captain Stephen Logue, "is a response to, 'How do we get more with less?'"

One way to do that, Logue has discovered, is by using an intranet. At NUWC, workers use the intranet to order office supplies delivered overnight to their desks in any building on the 190-acre campus. The 2-year-old intranet has also freed up access to corporate data, including an employee phone list and an executive business information system. Running sexual harassment training over the intranet has eliminated the need for the base's 3,000 employees from having to sit through an afternoon-long class—a change that has saved \$300,000 in 1997 alone. "It pays for itself every day," Logue says. "It makes money for us."

intranet winners

AFC Enterprises

AFC On-Line

A business process redesign launched this site, reducing printing costs and compressing time required to open the company's restaurants. The Development Roadmap assists in creating a business plan and ordering. Online training programs are in the works.

Allied Van Lines

Agent Notification System

This system, developed with pilot users, now extends customized desktop notification of changes to shipping and work schedules to 70 agents nationwide. When it's rolled out to 500 users, Allied expects to save \$6 million yearly and improve customer service.

Bay Networks Inc.

BayWeb

BayWeb connects 6,200 employees in 90 countries, providing immediate access to the high-tech manufacturer's benefit choices, travel arrangements, purchase requisitions and training. BayWeb has cut in-house phone calls to help desks and training costs.

The BOC Group Inc.

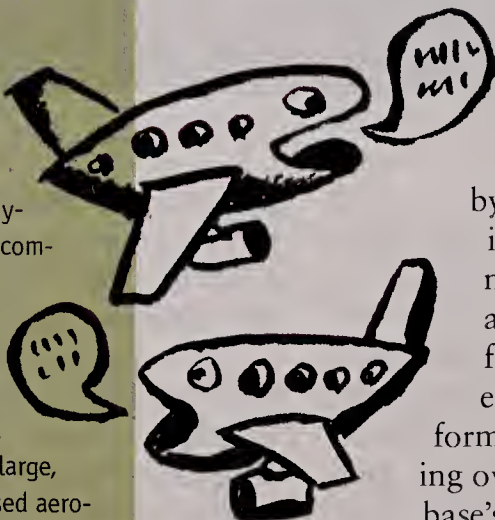
Prime

This intranet has changed how the BOC Group, which manufactures and distributes industrial gases and vacuum technologies, manages technology projects in 60 countries. Prime has provided complete accountability and audit trails for annual research and development and marketing expenses. It allows BOC to track project milestones, manage future costs and better evaluate the benefits of each project.

The Boeing Co.

Visibility Integration Standard (VISTA)

Boeing's intranet links to a database providing an easy method of reporting project status company-wide. VISTA helps the company reduce duplication and integrate similar projects in many different locations, saving time and money—critical for a large, geographically dispersed aerospace/defense contractor facing rapid technology changes.



Intranet Winners

Newport had some technological advantages that made developing an intranet relatively easy, says Eric Simmons, head of Newport's MIS/Office Automation Division. More than 90 percent of the base's 3,000 employees had networked computers on their desks, and about two-thirds of the employees were technology-savvy engineers or scientists. Much of the data that would populate the intranet was already online, accessible via a text-based system. But even with these advantages, there were cultural hurdles. In pre-intranet days, users needed a VAX account to access such information. There is a charge for VAX time, and business process owners often required a special log-on and pass-

The engineers spent precious hours poring over engineering drawings, searching for a likely point of failure. But they found none.

word before users could access a particular application. Mary Lee, head of the Computer and Information Services Department, describes the prevailing attitude like this: "I'm the information power, and you have to come to me to get the answer."

The IS group launched the data in May 1996. Logue's commitment to openness helped change people's thinking. He decided the intranet would be a good place to post his "weeklies," summaries of base happenings sent weekly to his supervisor. User requests also spurred data owners to open the doors, so the intranet could add access to things like an acronyms database, an equipment database and an executive business information system. The intranet team learned, however, that there is such a thing as too much openness. When the HR department started posting salaries online, a battery of protests persuaded them to think again. The salary information was removed before an hour had passed.

Purchasing proved to be one of the intranet's biggest successes. An old-fashioned paper purchase order could take up to 10 days to get approved, says Michael Miller, head of the commercial acquisitions department. If the warehouse didn't already have the goods stockpiled, the purchasing department would place an order. Warehouse workers would receive goods, repack them and distribute them across the campus, a process Miller says cost about 38 cents for every dollar of goods stored and moved. The total processing cost averaged more than \$100 per order.

After investigating purchasing projects at MIT and NASA, Miller decided to make two changes at Newport: He adopted a government bankcard purchasing system, which would let authorized employees make bankcard purchases up to \$2,500 (their

Booz, Allen & Hamilton

Knowledge On-Line

This site helped this consultancy move from a culture of knowledge-hoarding to one of knowledge-sharing. The company credits Knowledge On-Line with increasing publishing activities by 90 percent and media exposure by 50 percent. An IDC study estimates the ROI at 1,300 percent from time savings alone.

Charles Schwab & Co. Inc.

Schwab Mutual Fund Extranet

This extranet gives client companies secure access to financial reports and other data. Fund managers at more than 300 companies can check transaction data and sales figures anytime.

Chrysler Corp.

Dashboard

Chrysler's 45,000 employees and contractors worldwide rely on Dashboard for everything from company news to competitive vehicle information, quality standards and a vehicle-build tracking system. HR, corporate communications and IS sponsor the site, which receives more than 100,000 hits weekly. Dashboard also cuts printing costs.

REPEAT WINNER

Cisco Systems Inc.

Cisco Employee Connection

More than 12,000 Cisco employees can use CEC to enroll in classes, view meetings, submit expenses, report a problem to IS, make travel arrangements, browse product catalogs and order desktop equipment. Cisco credits its internal site with cutting employee time on many such tasks.

Cognitive Communications

Blah Blah

This misnomer of an intranet site is the daily work tool for Cognitive, itself an intranet developer. Cognitive uses its own intranet-based application, "Deep Thoughts," for idea generation and knowledge sharing to track projects and application-development processes. Employees use another application, dubbed "Enchilada," to manage every facet of a project, including all time tracking and staff allocation as well as expense reporting and client billing.

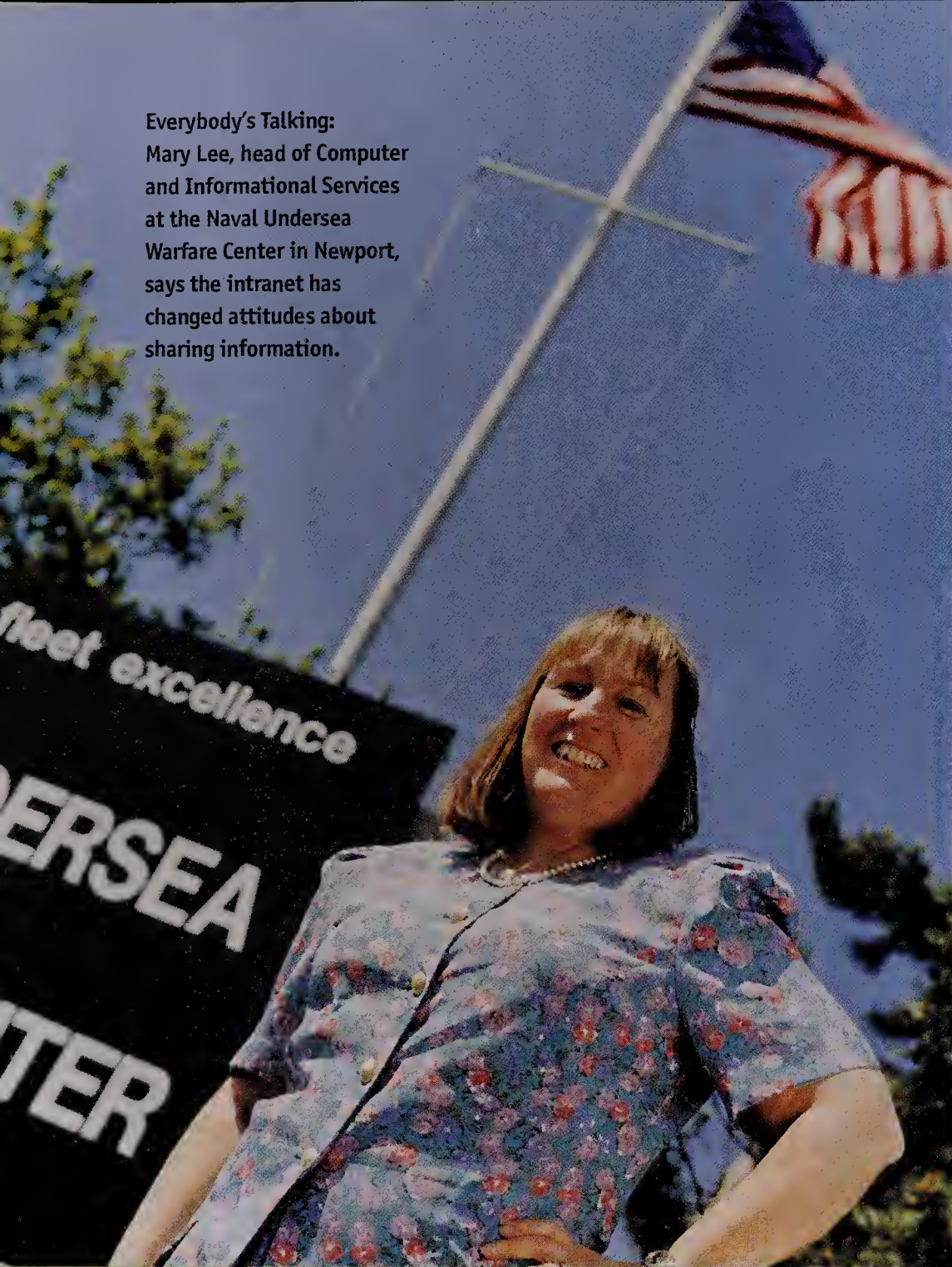


Compaq Computer Corp.

Compaq Services Inline

The Compaq Services Inline Web site has expedited the handling of technical assistance by about eight minutes per call, saving Compaq several million dollars a year. It has also drastically cut the amount of hard copy and generally improved the efficiency of sales and marketing.

Everybody's Talking:
Mary Lee, head of Computer
and Informational Services
at the Naval Undersea
Warfare Center in Newport,
says the intranet has
changed attitudes about
sharing information.



supervisors would have to sign the bill only at the end of the month); and he found suppliers who would deliver products and services directly to users. Those measures would relieve some of purchasing's workload. But finance needed to know about purchases as they happened, so it could set aside the needed funds. Without a way to automatically notify finance, Newport's scientists and secretaries would still be pushing around paper.

That was where the intranet really helped. Miller looked at client/server purchasing systems, but rolling out software on every desk would have been a hassle. Buying through the browser made more sense. In October 1996, Miller sought bids from GSA-scale office supply companies, hoping to find one that would take bankcard orders over the Web, deliver directly to users and send a file of all transactions to the finance department nightly. Office Depot won. By January 1997, NUWC Newport's intranet added an "IntraMart," which featured a link to Office Depot's private Web site. A link was later added to a toner supply company, one with whom Newport already had arranged just-in-time purchasing and direct delivery.

Some people resisted the bankcard move, Miller says, because it meant they would lose some of their authority and because they feared others would abuse the system. Miller persuaded them that the bankcards would offer more stringent accountability, pointing out that reports from Office Depot show what each employee has bought, and any abuses would stand out. End users, meanwhile, were

thrilled with the bankcards and online ordering; they bought roughly \$320,000 in supplies from Office Depot in the first year alone. "It's next day on the desk instead of waiting a week, two weeks," says Linda Cohen, secretary for NUWC Newport's deputy director. "It's marvelous."

To get rid of paper forms for other bankcard purchases, the Web group unveiled an application in March this year that lets users report bankcard purchases over the intranet. On the back end, the system checks available funding, provides a record of the purchase and does all the handshaking with finance so the money gets earmarked for the bill. Future plans call for adding more products and suppliers to the IntraMart, Miller says, and for letting users see and reconcile their bankcard bills online.

So far, the changes have let Miller cut 20 people from purchasing's small-contracts group through attrition and retraining. He has also cut 5 people from the warehouse. Those cuts have saved him more than \$600,000. True, Miller says, the staff cuts were made possible by the success of the bankcard system and just-in-time purchasing contracts, changes he could have made without an intranet. But without an intranet, Miller's savings would have made more work for end users. "If it wasn't for the intranet," Miller says, "I'm not sure some of these things would have clicked as quickly."

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Concert Communications Services

Concert Connection

Concert Connection, part of a four-site suite of telecommunications products, is a knowledge management tool available to Concert employees and distribution partners. Other related sites cater to vendors, customers, media and analysts. Concert credits its site with saving \$250,000 in printing and shipping costs and more than \$5 million in process reorganization.

Coopers & Lybrand LLP KnowledgeCurve

C&L clients can hop on KnowledgeCurve for instant access to news, reports, discussion groups, proposal development tools and more. When selected for a



50/50 award, KnowledgeCurve served 19,000 employees; the Price Waterhouse merger means 135,000 users worldwide.

PHOTO BY EURNALD / GRAY

Intranet Winners

Internal Combustion: Most intranets conserve time and money. True winners—including the 50 CIO Web Business intranet honorees—generate innovation as well. Here's a list, along with an under-the-hood look at some of the best.

Intranet Profile .2

Mastering Fine Motor Skills

General Electric was big-boned from birth. It's the only company of today's 30 Dow Jones Industrials that remains from the original list drawn up 102 years ago. Since its earliest days in the bulbs-and-kilowatts business as the Edison General Electric Co., GE has traced a growth trajectory. Today its market value exceeds \$275 billion—which is what you'd call your above-average big company.

Because the scale is all wrong, most big companies have trouble achieving the virtues of smallness. (Think of King Kong struggling to exercise fine motor control when handling Fay Wray.) Yet, now that more and more important work within organizations of all sizes is accomplished by teams of as few as a dozen or so members, the mastery of "fine motor skills" is a crucial capability.

That's the motive behind GE's creation of the Corporate Initiatives Roundtable. Roundtable is a project of GE's Corporate Initiatives Group (CIG). Under the direction of CIO Gary Reiner, CIG tackles such large, technology-enabled, division-crossing initiatives as Six Sigma quality efforts. Those time-and-resource intensive programs, says Roundtable Project Leader Wil Nelson, often divert resources from projects of more modest dimensions. The goal of Roundtable was to create a suite of online applications and resources that would help meet the demand for the kinds of Web-enabled capabilities that fall outside the scope of the broader CIG projects.

"What we try to do," says Nelson, "is create tools that help people build their own applications." Among those user-built apps is the Sourcing Information Collection Center—a dynamic-database application through which a small team of "sourcing professionals" (the group that manages supplier compliance with GE's standards of quality and efficiency) collect and analyze data on supplier performance. Says Nelson, "If someone can fill out a form, they can create one of these applications." That means users can define their fields of inquiry on their own. Under older development models, they would be stuck with a form that was freeze-dried and inflexible.

Featured among other Roundtable applications is a "conference management center" where teams planning live events can get full-featured logistics support for everything from registration to catering. Roundtable is soon to launch a "Resource Center" enabling all GE employees to find information relevant to their needs and interests. Consequently, says Nelson, the site will support a high degree of personalization, featuring the Amazon.com-like ability to make recommen-

Digital Equipment Corp. Digital Intranet Home Page

Digital's intranet is huge and useful: 1.3 million pages, 3,200 servers, 100,000 IP nodes. More than 55,000 employees worldwide access not just newsletters and directories but also information on leadership, brand awareness, business ethics and lifelong learning. Digital saves \$1 million annually by automating its cost-center billing process and reducing monthly invoices.



The Dow Chemical Co. Dow Intranet

This site, providing online HR functions and serving partners and vendors, receives 40,000 to 75,000 accesses daily. The company says the intranet saved \$450,000 annually in printing costs. Putting standardized company presentations online saves \$300,000.

General Electric GE Capital Real Estate

This intranet, with 800 users, has virtually eliminated costs of producing many internal communications and provided on-demand portfolio analysis and market research. By automating workflow processes, the company cut the time analysts need to close deals.

General Electric GE Corporate Initiatives Roundtable

Last year, it took a GE programmer six business days to develop an application to allow employees to register for online conferences. This year, thanks to tools on this intranet, a secretary can do the same job in 15 minutes. Employees can also use the Roundtable to plan and manage company events, hold virtual conferences online, create and distribute online surveys and share resources with coworkers.

Harvard Business School HBS Intranet

All faculty and students can access this state-of-the-art curriculum management system. Professors can add or delete content, including audio and video files; students can create dynamic pages. The prestigious institution says its site is so integral to learning that all faculty members and all students log on several times a day.

Houston Industries Inc. EMSweb

This utility's site provides real-time information for operators, fuel buyers, transmission dispatchers and other internal customers who need fast, accurate data to make buying and business decisions. The Web site, which replaced \$500,000 worth of legacy hardware, makes data easily accessible even to people working offsite or at home. And by creating a single repository for information, it's saved time previously spent on data entry.

dations based on prior usage. Nelson observes that on a commercial site like Amazon.com, the goal is to get customers to buy something they might not otherwise have bought. On an intranet, the goal is to serve up information people might not otherwise have found.

And that, from a knowledge management perspective, is the height of fine motor control.
—Lew McCreary

Intranet Profile .3

Focused Group

Managers at Cognitive Communications Inc. in New York City expect company employees to spend hours on Blah Blah, hanging out at The Mudpit and nibbling at pieces of Enchilada. Cognitive, you see, is in the business of building intranets. Blah Blah is the company's own intranet, and The Mudpit and Enchilada are two of its applications.

Blah Blah keeps company know-how, best practices and technical expertise from falling by the wayside. And because Cognitive is a provider of intranet and application development services, its own intranet serves as a proving ground for new ideas and technologies. Principal David Leveen believes there's no better way to see whether a solution will work for clients.

"We used to have a shared file system with information that was fairly easy to find," Leveen says. Easy, that is, if you were at home in the arcane world of files whose cryptic names revealed little about their contents. Aiming to create a more inclusive environment, Cognitive's intranet extended knowledge access to such "non-technical" people as the 32-person company's administrative personnel. At the same time, Leveen quips, "there's a lot of hot air at this company." With that in mind, Cognitive's jokesters dubbed their intranet Blah Blah.

Blah Blah, however, is anything but white noise. Covering every aspect of project management and intranet development, employees turn to Blah Blah for the latest programming tips as well as for the skinny on effective marketing techniques. Project members check online team rooms for all information relating to their initiatives. And new employees, needing to get up to speed, find the

intranet winners

InControl Inc. InControl

The site has helped this medical device manufacturer take project management to new levels of efficiency. Notification and response times went from 10 days to 1, savings are estimated at \$1 million and an automated help page cut customer response time in half.

Ingram Micro Ingram Micro U.S. Reseller Business Center

This Internet/intranet site, which catalogs more than 75,000 products, allows users to search for items, check inventories and place orders in real-time. With about 45,000 monthly users, Ingram Micro saves more than \$1 million a year in telecommunications costs.

IntelSat IntelSat Business Network (IBN)

A global satellite communications provider, INTEL SAT uses its intranet to build strong customer relationships with customers in more than 200 countries and territories. Online offerings enforce the sense of community. IBN gives real-time access to available satellite inventory and online ordering.

Lockheed Martin Enterprise Information Systems

Stats tell the story: Using 400 servers, the aerospace-defense contractor's intranet connects 110,000 employees in 50 businesses, offering software, employee and product directories, human resources materials, training, software and other resources online. Estimated ROI on HR policies and procedures application alone is 1,500 percent.

PHOTO LEFT BY CHRISTOPHER WEIL; PHOTO RIGHT BY CINDY CHARLES



The Blahs: Blah Blah
Principal David Leveen says employees use the oddly named intranet to find the latest programming tips as well as marketing techniques.

Intranet winners

team rooms most useful. "New associates can go back and see the old budget reports and project proposals, even the initial PowerPoint presentations we created to win the account," says Nancy Siegel, vice president of operations.

Employees use a work-tool application called Enchilada (as in "the whole enchilada") for filling out expense reports, logging time sheets, figuring schedules and managing budgets.

In The Mudpit, a forum focused on works in progress, project designers invite coworkers' comments through threaded discussions. Recently, a Java programmer posted a home-page design with drop-down screens and then requested feedback: Did the screens accommodate the graphic design? How did they look on various computer systems? "The specific team associated with the project contributed to the discussion, but it went beyond that," says Leveen. "There was feedback from all over the company, including the receptionist," and questions provided designers with just the user's point of view they were seeking. —Megan Santosus

Intranet Profile .4

World Wide Wellness

Given the percentage of annual revenues most businesses devote to employee health benefits coupled with the faster-than-inflation growth in health-care costs, it's not surprising that some intrepid Web innovators would come up with an application aimed at controlling the cost of benefits. In this regard, Siemens Business Communications Systems' Wellness Incentive Program (WIP) on the company intranet, RouteOne, appears to be breaking new ground.

Quite a few companies have created omnibus HR and benefits information sites, but we know of no other initiative that actually delivers a health benefits program over its intranet. At heart, WIP is an eight-week online behavior-modification regimen for which participating employees receive credits toward their share of dental, medical and life insurance costs.

Getting employees to live healthier lifestyles is a proven tech-



Lucent Technologies Inc. Lucent Benefits Central

This site automated benefits enrollment transactions, en-

Marketing Specialists The Market Place

The Market Place, a nationwide information resource for 4,500 employees, reduces information overload by providing a single interface for retrieving and viewing data from widely distributed sources, saves money by publishing internal documents online and streamlines the purchasing process through a secure capital expenditure request system.

MCI Communications Corp.

The Source Online

The telecom giant's HR intranet offers next-wave employee self-service. More than 60,000 workers access personal payroll, benefits, training and financial information. Many units offer Web-based performance evaluations or distribute raises and stock awards online. The source saves tens of millions yearly. MCI's next step: a paperless process and environment.

Millipore Corp.

@Millipore

Millipore, maker of purification products for scientific and chemical markets, offers another refined product in its intranet with self-service applications like reporting expenses, ordering business cards, arranging travel and getting information from more than 120 separate corporate databases, 35 of which are available via push technology.

Mutual of New York MONY Insight

By outlining goals and finding features to fit, MONY and Propel Technologies Inc. developed an information hub for MONY's home office and field sales employees. The intranet, with more than 192,000 hits in January, has 5,000 pages, including online forms and sales tools.

Health and Wealth:
John Deex, Siemens' manager of corporate health and wellness services, says the company's online Wellness Incentive Program decreased sick days and cost \$170,000 less than the day-long program that it replaced.

abling employees to do side-by-side self-service comparisons. Soon to be incorporated into a larger Lucent site known as iON.HR, Benefits Central offers personalized content and helps build corporate identity.

Intranet winners

nique for managing medical costs, and WIP has proved more effective than traditional program formats. Not only did the "cyberwellness" approach cost a mere \$30,000 (\$170,000 less than the "live" one-day program it replaced), but John Deex, Siemens' manager of corporate health and wellness services, credits it with a higher observable impact than that of earlier initiatives.

"Making measurements is difficult," acknowledges Deex, who led a cross-functional team in designing the inaugural Web-based campaign. "We've had to make inferences about the program's success. So we look at such things as a 3 to 5 percent decrease in absenteeism due to illness companywide [since launching WIP]." Deex also cites a 12 percent increase in employee participation in such reimbursable activities as health-club memberships, nutrition-education programs and enrollment in aerobics and kick-boxing classes at Siemens' own recreation center. "Every class is filled," he says.

A one-day seminar and questionnaire-based employee wellness audit preceded WIP. But, says Deex, "single-time events just don't work anymore.... Ideally, you want to promote activity over a period of six months to gain the ultimate commitment of the individual in terms of behavior change."

The initial eight-week program offered modules addressing nutrition, fitness and stress management. A second campaign debuted in late April with three more modules: "Recipes for Life" (says Deex, "Your grandma's recipes, only with more-healthy substitute ingredients"), "Is Your Home Hazardous to Your Health?" (tips on maintaining a safe home environment) and "Pains, Strains and Sprains" (prevention of repetitive and one-time stress injuries).

According to Deex, Siemens Business Communications Systems' commitment to employee health initiatives predates its acquisition by Siemens. Besides helping to lower the cost of health benefits, Deex says Siemens' culture of concern for wellness promotion is a factor in attracting and retaining high-caliber people.

"We do risk management," says Deex, "in the broadest possible sense."

—Lew McCreary



NCR Corp. NCR Net

In addition to the standard companywide intranet information, NCR Net offers 10 "community desktops" with resources for specialized audiences, such as partners, distributors and salespeople. Content owners take responsibility for content creation, with no HTML expertise required. Testimonials indicate strong user satisfaction.

Newaygo, Mich., School District Newaygo Public Schools Intranet

Students, teachers and parents can check this western Michigan school system's intranet for information from cafeteria lunch listings to football schedules to attendance records. The site gets extra credit for using students to help design and run the site, doing its part to prevent the projected 21st century IT worker shortage.

Nortel (Northern Telecom) IS Department CyberShop

An IS team created CyberShop, a virtual-reality laboratory, which uses Nortel's giant intranet to market IS capabilities to employees worldwide. By donning VR helmets, users can travel through "rooms" to view IS products and services. The effort has achieved the department's goal of attracting new internal business.

National City Corp. Gateway

When this financial services company acquires other businesses, its intranet is a repository for relevant information. Searchable by keyword, the intranet offers a major improvement. And with its standardized information, Gateway's an effective way of introducing newcomers to the company's culture.

Naval Aviation Depot Jacksonville, T-45 Fleet Support Team

GOSNET: The T-45 Extranet

GOSNET focuses on the T-45 Goshawk, a student training jet. The extranet lets the Navy's T-45 fleet support team share data with The Boeing Co., the jet's lead contractor. Launched at minimal cost, GOSNET has improved collaboration, broadened data access and streamlined processes.

Naval Undersea Warfare Center, Division Newport NUWC Division Newport Intranet

Conducting mandatory training over the intranet has saved this Naval R&D Center \$300,000 per year, while an online paperless purchasing system for office products saves over \$100 per order. The intranet also gives access to information in existing corporate databases, reaching 3,000 employees and 1,000 contractors at eight sites.

Intranet Profile .5

Banking on the Future

When word came down from the chairman of National City Corp. that the bank needed to eliminate barriers across operations, Ron Aderhold sprang into action. Aderhold, vice president of Internet e-commerce technologies and strategies for the Cleveland-based financial services company, spearheaded the creation of an enterprisewide intranet. "As part of the [company chairman's] initiative, we had to break down silos not only between organizations but among product groups, geographies and back-end systems of information," Aderhold says. The idea was to take a cross-cut of National City's retail, corporate and trust groups and refocus attention on customers rather than on operations.

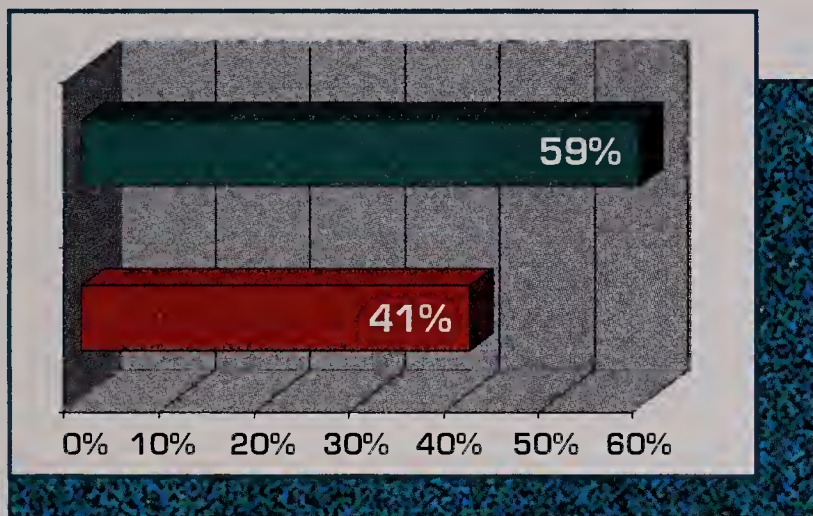
In addition, National City has a habit of growing by acquisition: Over the past six years, its assets have tripled to \$55 billion. With

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Intranet winners



Tear Down the Wall: Ron Aderhold, VP of Internet e-commerce technologies and strategies, built an intranet to eliminate barriers between operations at National City Corp.

employees scattered in five states, National City has designed Gateway, its intranet, to foster a sense of community.

For example, to smooth the integration of cultures, product lines and systems, Gateway hosts a password-protected consolidations community for employees overseeing processes associated with each acquisition. "When we acquire another bank we have to integrate back- and front-end systems in six to nine months," Aderhold says. "The [consolidations] community serves as a repository for deliverables and all the project management time frames that are part of a consolidations project."

Before Gateway went live in December 1997, the bank housed such information in shared subdirectories on a network, which, Aderhold admits, was so poorly organized it wasn't very useful. On Gateway, however, the file repository is completely searchable by keyword.

But even having information easily accessible isn't enough, Aderhold says. And soon, project managers will be able to use Gateway to inform employees electronically about project-critical assumption documents and to keep track of who has—and who hasn't—read the information.

Putting the assumption documents online is proving useful in this year's integration with First of America Bank Corp. By validating that all project employees read specifically designated documents, Gateway ensures that everyone's efforts are coordinated and directed to meeting deadlines. For example, if a marketing manager creates

North American Power and Per-Se Technologies

World Wide Retail Energy eXchange

This site lets energy suppliers bid for buyers based on anonymous online customer profiles that include power-consumption summaries and other information. Customers save on energy costs. Suppliers save on sales and marketing costs by instant access to qualified buyers. North American Power, which formerly did matching by hand, saves on personnel costs.

REPEAT WINNER

Perot Systems

The Real-Time Associate Information Network (TRAIN)

This site has added benefits enrollment and online procurement support to a full complement of self-service applications, including online training, orientation and skills databases. Officials credit TRAIN with improving efficiency, saving staff time, cutting costs and, above all, helping the company's corporate culture remain stable even as its workforce rapidly expands.

Progress Software Corp.

Progress Enterprise Solution Catalog

Both an extranet and a public Web site, this site provides product and business partner referrals in eight languages. Its content also feeds and updates a CD-ROM catalog that allows power users to search offline. The Web-based catalog cut costs by 46 percent in its first year, saving \$250,000 in project administration, data collection, printing and distribution costs.

The Prudential Insurance Company of America

Prudential Real Estate Affiliates Center

This intranet serves a network of widely dispersed agents and field staffers, providing news, a "people and office locator," a discussion forum, a business resource center and a catalog of products and services. Prudential saves at least \$170,000 annually, mostly on paper-related expenses.

Reliance Group Holdings

RelNet

More than 3,500 employees at two Reliance companies use RelNet as a common knowledge repository. RelNet is home to several critical applications, including a risk management system, a time-and-attendance system and a document management system. RelNet is expected to save \$15 million in application development and deployment costs over the next five years.

SBC Communication Inc.

Corporate Intranet

SBC's intranet was launched with the dual goals of streamlining internal operations and facilitating employee communications. Information about benefits, job opportunities, personal finance and operations is organized by business unit. Each month, 90,000 employees access the intranet for information, saving the company \$2.5 million in printing and distribution costs.

PHOTO BY ROGER MASTROIANI



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Intranet Winners

a schedule based on a network manager's finishing a project by April 15, everyone else should be aware of how his or her own deadlines affect all other aspects of the project.

"The real benefit comes with the next consolidation," Aderhold says. "We already have a community that contains planning assumptions about how products are going to merge and how marketing is going to merge. We have a record available from day one on what worked well and what didn't, so," he adds with some confidence, "we don't have to begin from scratch." —Megan Santosus

Intranet Profile .6

Intramural Communication

Like Silicon Valley's high-tech workers and Wall Street's financial experts, teachers and administrators in the Newaygo (Mich.) Public

Siemens Business Communication Systems RouteOne

Siemens conducted its Wellness Incentive Program over its intranet. Employees earned credits toward health insurance by accessing online lessons about stress management, exercise and nutrition. Siemens reports 75 percent of 6,000 employees participated, saving \$170,000.

Sprint PCS ConnectED

Rapid deployment is a watchword of intranet-based applications, and Sprint's site is no exception. Completed six months ahead of schedule, this 600-user operation gives users access to more than 120 company financial reports and publishes more than 20,000 HTML pages—nightly.

Star Enterprise DotWeb

Star Enterprise's wholesalers purchase millions of dollars worth of fuel daily based on pricing information delivered by subsidiaries of Texaco Inc. and Saudi Aramco. The Starbase system offers individual real-time pricing information to each wholesaler where and when they need it.

Sun Microsystems Inc. SunWeb

SunWeb simplifies access to the millions of HTML pages on Sun's intranet. SunWeb includes a comprehensive alphabetical index for everything from PR documents to health-care forms to network statistical reports. A search engine indexes content in all 5 million online documents, including Postscript and PDF files.

Toshiba America Information Systems Inc., Electronic Imaging Division Internet FYI

Employees, dealers and distributors build strong relationships on this electronic commerce and informational site. Web technology simplifies ordering of more than 40,000 spare-part SKUs for fax machines and copiers, enables overnight shipping and saves time, money and headaches.

Slayton International Inc. IICNet

A Web-enabled Notes application connects 35 of Slayton's executive search offices worldwide. The application enables collaboration. The Web application cost \$35,000, compared with the \$150,000 price for a relational database version of the same application.

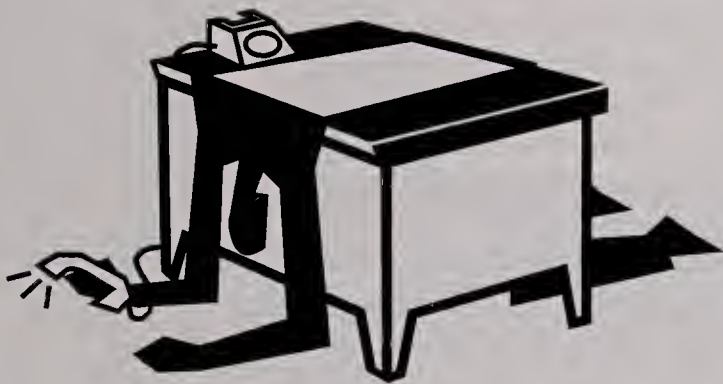


School Ties: Shawn Flock, technology coordinator at Newaygo Public Schools, and Rick Mislan, now technology director for Fremont Public Schools, used a team of 30 high school students to create a popular school-systemwide intranet.

Schools spend the first few minutes of each school day logged onto the school district's intranet.

"It started as a way to save paper," says Rick Mislan, creator of the intranet. Mislan, now technology director for a rival district in Fremont, Mich., recalls that in Newaygo, "we'd put two student workstations and a teacher workstation in every classroom, and everybody started to print everything out. When we noticed paper costs were going up, that was our cue to put all that information on the Net."

PHOTO BY MARC BERLOW



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Intranet winners

Today, all Newwaygo staff members and students have accounts on the system. "Our intranet started out because people wanted to find out about sports events and scores, and gradually it grew," says Shawn Flock, Newwaygo's technology coordinator. Flock and his three-person staff work with a "tech team" of 30 high school students. The team coordinator, a high school senior whose service constitutes one aspect of the vocational-education program, interviews and selects the other team members. As a group, students oversee the site's structure and design, ensuring that it runs smoothly and setting standards for content.

In addition to attendance records, the site provides daily announcements, school lunch menus and staff voice mail and phone numbers. But the Newwaygo intranet isn't just an employee convenience. It also offers e-mail, links to useful Web pages, advice about efficient Web navigation and information about the school system's technology. For example, if teachers need to know which of the district's 250 computers has RealAudio capabilities, they'll find the answer online.

The intranet's continuously scrolling announcements report technology notes that detail the systems' operations as well as sports scores and other general interest information. And the search engine serves as a point of departure for students doing research for academic projects, hunting for college application and scholarship information or even just checking local weather forecasts.

While the Newwaygo schools intranet was apparently its region's first, its success leads Flock to predict that most neighboring districts will be similarly wired within a year or two. —Ruth Greenberg

Intranet Profile .7

Ad Space Station

John Dankowych, IS manager of marketing and new ventures for Toronto-based Nortel (Northern Telecom), was dismayed to learn that the company frequently outsourced technology development jobs rather than turning to his talented shop. So he and his small team turned to the intranet for a little internal marketing.

It could have been a tough sell because of his technically savvy audience: Nortel's research scientists and technical experts. "The staff all have computers on their desks, computers at home. They're very sophisticated," Dankowych says. To attract their attention, CyberShop is a centrally located Nortel facility. CyberShop's virtual reality workroom contains two state-of-the-art virtual reality workstations on which IS solutions are showcased. Says Dankowych, in an understatement: "We wanted to provide the users with something they'd remember us with."

These days, while sipping drinks at CyberShop's juice bar, staffers perch on fashionably high-tech chairs and test-drive its two workstations, which run a custom application called VRWorld. It is directly connected to Nortel's intranet, which includes more than 1.5 million Web pages worldwide; VRWorld contains 51 rooms through which users can navigate to discover information about Nortel's IS products and services.

Donning virtual reality helmets, CyberShop's visitors move through a "space station," which includes Web sites Nortel developed for customers ranging from the Dallas Cowboys to the company's own HR department. Without detracting from its practical goals, CyberShop takes a fun-and-games approach. The spaceship's digitized voices lead

REPEAT WINNER

U.S. Atlantic Command

Knowledge Today

Knowledge Today continues to enable military officials to make faster, better informed decisions. A key improvement: "Knowledge Today Express," a parallel site designed to run faster for remote users on laptop computers. USACOM shared its lessons learned with two other military groups, allowing them to rapidly develop similar sites.

USCS International InSite

Initially launched as a Web evangelism tool, InSite now serves as the software company's vehicle for internal communication, collaboration, knowledge sharing and distribution and employee self-service. Production crews without their own computers can access InSite from group information kiosks. Everybody in the company contributes to content development.

U.S. Dept. of Health and Human Services Beneficiary Medical Program

The system provides workflow and processing for all claims for health-care services covering commissioned officers of the U.S. Public Health Service and the National Oceanic and Atmospheric Administration. The intranet enables enforcement of negotiated fee-for-service levels (at a claimed saving of \$1.5 million a year), consolidates information for access through a single interface and empowers staff to resolve claims issues.

REPEAT WINNER

U.S. Dept. of Housing and Urban Development HUDWeb

This site serves employees in 81 regional HUD offices, providing chat rooms where they can exchange ideas on important issues and comment on departmental policies. HUD credits the site with improving communication and saving thousands of dollars annually in printing and mailing costs.

users through the virtual world to specific rooms. Each room presents the Web home page of a particular IS product, and by firing their joystick lasers, users can gain access and browse the Web sites that interest them. Along the way, visitors are encouraged to use their lasers to shoot robots that cross their paths. If both workstations are active, users can shoot each other—virtually, of course.

CyberShop's well on its way to achieving Dankowych's goal of promoting his shop's talents: To date, fully 75 percent of Nortel's 3,000 Brampton, Ontario, employees have used the VRML application to get better acquainted with their IS shop. —Steve Singer

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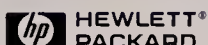
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October 4-7, 1998
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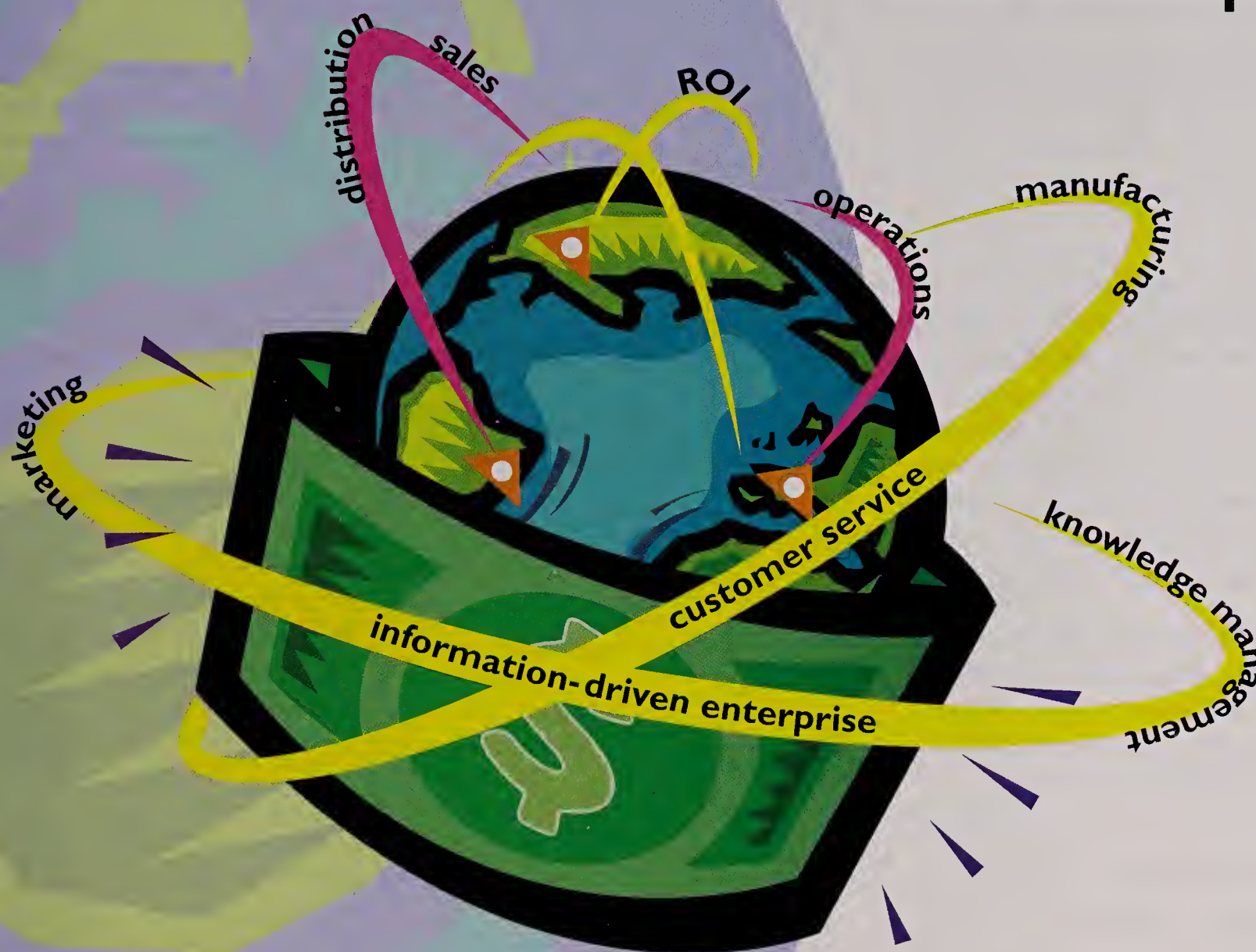
CONFERENCE PREVIEW

Wednesday Keynote

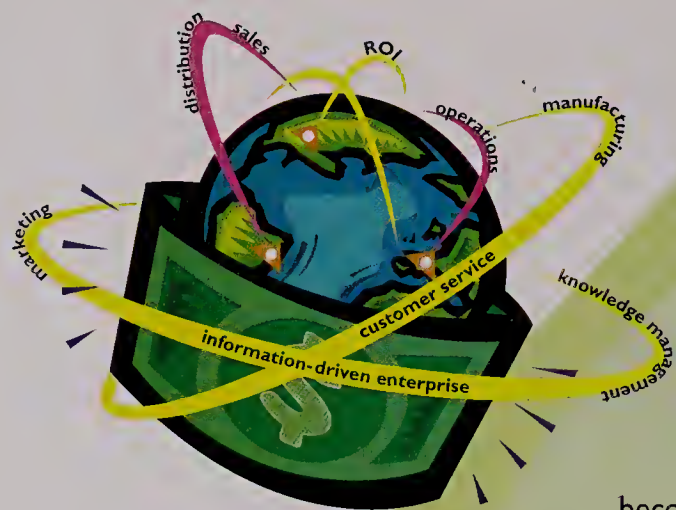
**Peter
Drucker**

Featured Presenter

Tom Davenport



The Value of Enterprise Information as Business Currency



The Value of Enterprise Information as Business Currency

As information becomes the new coin of business, organizations must learn how to break down the barriers between

traditionally separate business functions.

By encouraging enterprisewide information sharing, companies can rethink processes to maximize business value. In essence, CIOs and business executives must create and support an IT-driven enterprise.

The latest in our *CIO Perspectives*® conference series, **The Value of Enterprise Information as Business Currency** will help participants better understand how an organization develops an integrated IT/business strategy encompassing all of its partners. You will learn what leaders should do to foster new cross-functional relationships and facilitate adding information sharing to create more value for customers and strategic business partners.

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"This is arguably the most prestigious conference in the world for chief information officers, and the tasks of the CIOs writ large are the leading-edge tasks of reinventing the world."

Tom Peters
President
The Tom Peters Group
Author
The Circle of Innovation

Other featured presenters include **Tom Davenport**, Curtis Mathes Fellowship Professor and director, Information Systems Management Program at the College and Graduate School of Business at the *University of Texas at Austin* and the CIOs of *The Nature Conservancy*, *Partners HealthCare System, Inc.* and *Procter & Gamble*.

Using case studies, business briefings and presentations from leaders in the business/IT revolution, you will learn how companies have successfully adapted to processes driven by information and technology. By incorporating this knowledge into your own business strategy, you will be prepared to meet the information driven demands of your customers in the 21st century.

To participate in **The Value of Enterprise Information as Business Currency**, visit our Web site at www.cio.com and enroll online or simply complete the enrollment form on the back of this brochure and fax it to us at 508 879-7720. You may also call our conference hotline at 800 366-0246.

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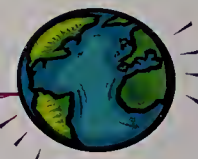
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Business Briefings

In addition to our general sessions, a series of business briefings will be provided on Monday and Tuesday by our Corporate Hosts.

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Participation in the companion program includes all scheduled meals, receptions, entertainment, a stretch and tone class, safari tour at the San Diego Wild Animal Park on Monday and a Tijuana shopping spree on Tuesday.

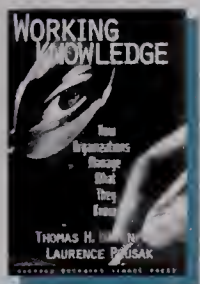
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TUESDAY KEYNOTE



Thomas Davenport

*Curtis Mathes Fellowship Professor
Director, Information Systems
Management Program
College and Graduate School of Business
University of Texas at Austin*



"Knowledge management is a business issue for competitive advantage, not just an information technology issue. It will become increasingly important, especially for large enterprises needing to create, share and reapply knowledge on a global scale. Working Knowledge is as thorough and complete a book on this subject as exists today."

Todd A. Garrett

*Senior Vice President and CIO
The Procter and Gamble Company*

CIO Perspectives conference participants will receive a copy of *Working Knowledge* and *The World According to Peter Drucker*!

WEDNESDAY KEYNOTE

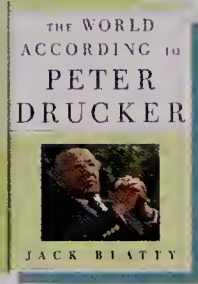


Peter F. Drucker

"While Drucker famously denies he invented modern management, claiming that the idea is nonsense — he once told me that 'the CEO of the builder of the Cheops pyramid 6,000 years ago surely knew more than any CEO today' — he has most certainly spawned the major management ideas of this century. And this book, beautifully written and fascinating throughout, does Drucker justice by presenting an omnibus of his ideas with clarity, wit and critical appreciation..."

Warren Bennis

*University Professor at the University of Southern California
Author, *Organizing Genius**



FEATURED PRESENTERS



Doug Barker

*Vice President
Director, Information Services
The Nature Conservancy*



Stephen N. David

*Senior Vice President
Customer Business Development
The Procter and Gamble Company*



Todd A. Garrett

*Senior Vice President and CIO
The Procter and Gamble Company*



John Glaser

*Vice President and CIO
Partners HealthCare System, Inc.*



Rick Pastore

*Executive Editor
CIO magazine*

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*Director, Technology Strategy
Pfizer, Inc.*

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- ☐ **SALES/MARKETING/CONSULTING = \$10,000**
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Companions must be enrolled in this program to attend any conference-related functions. Includes all scheduled meals, receptions, entertainment, companion breakfast, a stretch and tone class, a safari tour at the San Diego Wild Animal Park on Monday and a Tijuana shopping spree on Tuesday. Conference session attendance is **not** included.
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A block of rooms has been reserved at the Sheraton San Diego. We urge you to make your reservations early by calling the hotel at 619 692-2265 and identifying yourself as part of the **CIO** conference to receive the conference rate. **CIO will make hotel reservations for government/military participants only.** Be sure to guarantee your room with a credit card, as all unreserved or unguaranteed rooms will be released on September 4, 1998. Hotel reservations, cancellations and charges are your responsibility. If a **CIO** conference Enrollment Form is not received within 48 hours of making your hotel reservation, your room will be released from the **CIO** room block.

TRANSPORTATION

American Airlines is the official conference carrier. For discounted airfare, call 800 433-1790 and reference Star File #S050AB. AVIS is the official car rental provider. Call AVIS at 800 331-1600 and reference B766657.

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All enrollment fees must be paid in advance of the meeting. Fee includes conference sessions, business briefings, corporate host displays, conference materials and scheduled meals, receptions and entertainment. Transportation, hotel and recreation are your responsibility. Please note that submission of this enrollment form to **CIO** obligates the attendee/ sender for the enrollment fee.

CANCELLATION

ALL CANCELLATIONS OR SUBSTITUTIONS MUST BE **IN WRITING**. You may cancel your conference or companion enrollment up to September 4, 1998 without penalty. A \$250 administration fee will be imposed for cancellations between September 5-18, 1998. No refund or credit will be given for cancellations received after September 18, 1998 or for no shows. You may send a substitute in your place. **CIO** reserves the right to decline enrollment to any registrant.

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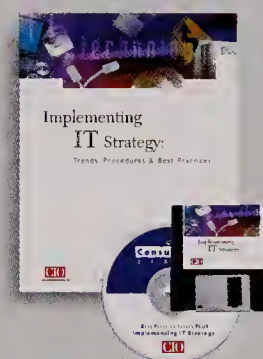


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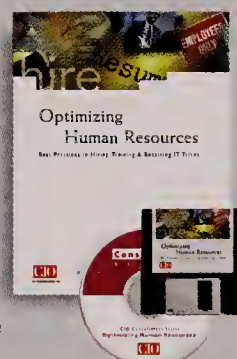


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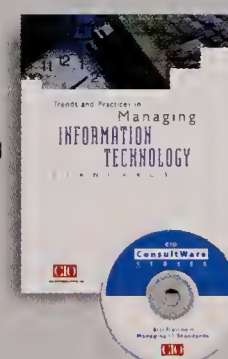


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